DOCUMENT RESUME

ED 139 972 CE 010 993

TITLE	Graphic Communications. Industrial Arts. Performance Objectives. Junior High School.
INSTITUTION	Duval County School Board, Jacksonville, Fla.
PUB DATE	[73]
NOTE	178p.
EDRS PRICE	MF-$0.83 HC-$10.03 Plus Postage.
DESCRIPTORS	*Behavioral Objectives; Communications; *Criterion Referenced Tests; Curriculum Guides; *Drafting; Exceptional Students; *Graphic Arts; Industrial Arts; Junior High Schools; Secondary Education; Trade and Industrial Education

ABSTRACT

Several intermediate performance objectives and corresponding criterion measures are listed for a graphic communications course for seventh, eighth, and ninth grade students. The seventh grade section includes eight terminal objectives for a 9-week course and covers the basic fundamentals of photography, bookbinding, and silk screening. The eighth grade section, which is a continuation of the seventh grade activities, includes nine terminal objectives for a 9-week course and covers technical sketching, silk screening, letterpress, and photography. The ninth grade section is divided into four separate one-semester courses: (1) Graphics 1A is a general course and contains 15 terminal objectives, (2) Graphics 1B is an accelerated program for students who are capable of doing more advanced work and contains 15 terminal objectives, (3) Drafting 1A is an introduction of mechanical drafting as a language of industry and contains eight terminal objectives, and (4) Drafting 1B is a sequential study of the areas covered in Drafting 1A for the above average student and contains seven terminal objectives. An industrial arts equipment list is also included. (This manual and 54 others were developed for various secondary level vocational courses using the System Approach for Education (SAFE) guidelines.) (HD)

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JUNIOR HIGH SCHOOL

INDUSTRIAL ARTS

PERFORMANCE OBJECTIVES

ED139972

GRAPHIC COMMUNICATIONS

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MAKE-UP AND USE OF THIS MANUAL

Definitions

Terminal Performance Objectives - are objectives referring to a behavior, knowledge, or skill you want the learner to demonstrate at the end of a particular unit or section. They are written in gross, overall terms.

Intermediate Performance Objectives - are sub-functions of terminal objectives referring to a behavior, knowledge, or skill you want the learner to demonstrate along the way towards mastery of the terminal objectives. They are written in specific terms.

Criterion Measures - are the actual tests of evaluation exactly as it will be presented to the learner to see if he has met the objectives.

Method Media Analysis - specifically refers to personnel resources, tools, vehicles, software, and hardware media - the physical hows for implementing the methods or ways of curriculum implementation. (Each media center is different in the materials available to assist the instructor in lecturing and demonstrating. Therefore, the individual instructor must research the school's media center for the appropriate materials to be used).

Levels of Performance - The levels of performance (how well it must be done) given in this manual have been arrived at by the authors through past experiences and by consultation with other Industrial Arts teachers in Duval County. These levels are subject to change after try out. They are written as average levels of attainment that all students should achieve. This by no means limits the instructor, who can teach as far above the level as possible.

These objectives are minimal - The objectives in this manual represent the basic "need to know" knowledge and skills that should be attainable by any student that meets the prerequisites of the courses.

Courses Prerequisites - The prerequisites for these courses may need revision. For example, if your course calls for a certain skill in reading ability and you are getting students below this ability that cannot perform up to the course standards, then a prerequisite of "must be able to read at the -- level" may be needed.

* ACKNOWLEDGEMENTS *

This manual has been developed following guidelines established by S. A. F. E. (System Approach for Education) training program.

Recognition and appreciation are extended to the following educators who have assisted in the preparation of this manual.

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GRAPHIC COMMUNICATIONS

7th GRADE STUDENTS

ACCREDITATION NO. 5831

PROGRAM PATH: EXPLORATORY

PREREQUISITE: 7th GRADE STUDENT

LENGTH OF COURSE: 9 WEEKS

COURSE DESCRIPTION:

An introduction to three processes in Graphic Communications. Basic fundamentals of photography which includes light theory, film, film processing and contact printing. Bookbinding - use of simple bookbinding materials and hot type printing with foil; silk screening, which would include the drawing, cutting, and printing of stencil designs using the tools and equipment of the silk screen printing process.

GRAPHIC COMMUNICATIONS
7th GRADE

1.0 Orientation

2.0 Safety

3.0 Occupations

4.0 General History

5.0 Measurement and Its Application

6.0 Linoleum Block Printing

7.0 Photography

8.0 Bookbinding

NOTE: This course was designed for a nine (9) week period of study. It will be the individual instructor's decision as to how extensively he covers the materials, depending on his own particular "time allotted" situation. This course was designed to follow a path from fundamental processes to an "in depth" study in sequential order. The instructor should not reverse the order in which The Terminal Performance Objectives are written, but should teach as far into each as time will permit.

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 1.0 ORIENTATION

The learner will, with 80% accuracy, list the classroom responsibilities expected of him. The learner will also demonstrate, orally, his knowledge of the grading procedures used in this course of study.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
1.1	The learner will write and define the responsibilities (listed below) expected of him in the general graphics communications laboratory: 1. Punctuality 2. Citizenship 3. Safety 4. Behavior 5. Good Housekeeping	1.1	Write and define five (5) areas of responsibility expected of you as a learner.
1.2	The learner will orally recall the following areas to be graded in this course of study: 1. Projects 2. Tests 3. Written Work (other than tests) 4. Daily Performance	1.2	State the four (4) areas to be considered in arriving at a final grade.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 1.0

I. P. No.	M/M No.	Method / Media Selection
1.1	1.1.1	Lecture
		Chalkboard Demonstration
1.2	1.2.1	Lecture
		Chalkboard Demonstration

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 2.0

SAFETY

The learner will write ten (10) of the fifteen (15) General Safety Rules of the graphic communications laboratory, define in writing the term "Safety Consciousness", and will demonstrate his ability to follow the rules of good housekeeping in the laboratory.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
2.1	The learner will list fifteen (15) General Safety Rules of the graphic communications laboratory. 1. No horseplay 2. No running in the laboratory 3. Keep your tools clean 4. Keep volatile materials in proper containers 5. Wear proper clothing 6. Keep the floor area clean 7. Wear safety equipment where required 8. Know the fire drill procedures 9. Keep safety guards in place 10. Use the proper tool. 11. Get instructor's permission before operating any machinery 12. Know the location and use of all fire extinguishers 13. Report all malfunctions or breakage to the instructor 14. Report any injuries at once 15. Report any unsafe practices at once	2.1	Write fifteen (15) General Safety Rules from memory.
2.2	The learner will define in writing the term "Safety Consciousness" as "each individual's responsibility to protect himself and others in any and all laboratory situations."	2.2	Define in writing the term "Safety Consciousness".
2.3	The learner will demonstrate, by daily actions, his ability to follow the rules of good housekeeping. 1. Keep tools clean 2. Clean the equipment properly 3. Store all tools properly 4. Clean assigned area	2.3	You will be graded on your willingness and ability to follow the four (4) rules of good housekeeping. 1. Keep tools clean 2. Clean the equipment properly 3. Store all tools properly 4. Clean assigned area

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 2.0

I. P. No.	M/M No.	Method / Media Selection
2.1	2.1.1	Lecture
		Handout Sheet
		Film
2.2	2.2.1	Lecture
2.3	2.3.1	Lecture
		Demonstration

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 3.0

OCCUPATIONS

The learner will, with 75% proficiency, write a brief description of the graphic communications apprenticeship programs and write fifteen (15) areas of specialization available in the field.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
3.1	The learner will research, using the media center, and write a brief description of how the apprenticeship programs function in the field of graphic communications.	3.1	Research, using the media center, and write a brief description of how the apprenticeship programs function in the field of graphic communications.
3.2	The learner will demonstrate his knowledge of occupational opportunities within the field of graphic communications by listing the following areas of specialization: 1. Photographers 2. Typesetter - Hand 3. Proofreaders 4. Make-up 5. Salesmen 6. Photo - Engravers 7. Electrotyper 8. Pressmen 9. Binders 10. Maintenance 11. Repairmen 12. Compositor 13. Strippers 14. Platemakers 15. Typesetter - Machine	3.2	List fifteen (15) occupational areas of specialization available in the field of graphic communications.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 3.0

I. P. No.	M/M No.	Method / Media Selection
3.1	3.1.1	Research Media Center Communicate with unions and business agents Lecture
3.2	3.2.1	Lecture Research Media Center. .

COURSE GRAPHIC COMMUNICATIONS

7th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 4.0

GENERAL HISTORY

With 75% accuracy, the learner will recall in writing, a brief history of printing methods, printing papers, and inks. He will demonstrate, in writing, his understanding of the basic principles of photography.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
4.1	The learner will, in writing, define these three (3) ancient means of graphically communicating: 1. cuneiform - wedge shaped letters 2. hieroglyphics- picture writing 3. alphabet - phonetic characters	4.1	Define three (3) of the ancient means of written communication using your text and media center. 1. cuneiform 2. hieroglyphics 3. alphabet
4.2	The learner will, in writing, research the early history of book printing.	4.2	Using the media center and your text book, write a two-hundred (200) word history of book printing from scroll writing to folded-bound books.
4.3	The learner will, by written examination, identify the following three (3) types of ancient materials used prior to paper: 1. Papyrus - writing material made from fibers 2. Parchment - writing material made from skins of sheep and goats 3. Vellum - finest grade of parchment paper	4.3	Identify each by matching: ___ Papyrus — 1. finest grade of parchment paper ___ Parchment — 2. writing material made from fibers ___ Vellum — 3. writing materials made from skins of sheep and goats
4.4	Given two (2) lists, one of famous printers and one of their accomplishments, the learner will match the two (2) lists.	4.4	Match the following: ___ Mergenthaler — 1. started publication known as the Pennsylvania Gazette. ___ Ben Franklin — 2. invented Moveable type ___ J. Guttenberg — 3. invented Linotype machine

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 4.0 cont'd.

GENERAL HISTORY

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
		4.4	___ Stephen Daye 4. set up first press in U. S. A. at Harvard.
4.5	The learner will, in writing, identify the three (3) major ingredients of ink. 1. pigment - coloring 2. vehicle - body 3. drier -catalyst	4.5	Match the following ink ingredients to their definition: ___ pigment 1. body ___ vehicle 2. catalyst ___ drier 3. coloring
4.6	The learner will list, in order, the fundamental processes involved in taking and developing a photograph. (a) load camera (b) expose film (c) develop film (d) print picture	4.6	Using your text, list in order the fundamental processes of picture taking and developing.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 4.0

I. P. No.	M/M No.	Method / Media Selection
4.1	4.1.1	Lecture
		Research Media Center
		Handout Sheet
4.2	4.2.1	Text
		Research Media Center
		Lecture
4.3	4.3.1	Lecture
		Research Media Center
		Examination Sheet
4.4	4.4.1	Lecture
		Research Media Center
		Examination Sheet
4.5	4.5.1	Lecture
		Text
		Examination Sheet
4.6	4.6.1	Lecture
		Text
		Research Media Center

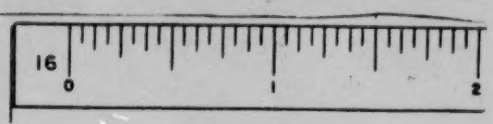
COURSE GRAPHIC COMMUNICATIONS

7th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0

MEASUREMENT AND ITS APPLICATION

The learner will, with 70% proficiency, demonstrate in writing, the ability to read a twelve (12) inch ruler and to "break down" accurately the fractional divisions of an inch to one-sixteenth (1/16). He will further demonstrate his ability to use these skills by accurately measuring paper stock to standard sizes, as supplied by the instructor.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.1	The learner will demonstrate in writing his ability to "break down" an inch into fractional divisions as small as one-sixteenth (1/16).	5.1	The learner will draw an enlargement of one inch and indicate one-sixteenth (1/16) graduations by labeling each fractional division. 
5.2	The learner will demonstrate his knowledge of the standard paper sizes by measuring and listing these five (5) sizes: (a) 8½ x 11 (b) 8½ x 14 (c) 11 x 15 (d) 12 x 18 (e) 17 x 22	5.2	List and measure five (5) different standard paper sizes.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 5.0

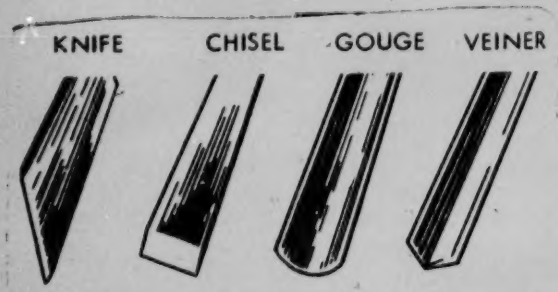
I. P. No.	M/M No.	Method / Media Selection
5.1	5.1.1	Chalkboard Demonstration
		Equipment
5.2	5.2.1	Lecture
		Tools
		Materials

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0

LINOLEUM BLOCK PRINTING

The learner will, with 75% proficiency, demonstrate his comprehension of linoleum block printing by selecting a design, transferring, cutting, and printing linoleum block.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.1	The learner will select a design to be printed by the linoleum block.	6.1	Submit a design to the instructor to be block printed.
6.2	The learner will transfer his design to a linoleum block.	6.2	With the equipment issued, transfer your design to the linoleum block.
6.3	The learner will identify orally the four (4) basic block carving tools.	6.3	Identify, orally, four (4) carving tools exhibited by the instructor.
	 *Linoleum block carving tools.*		
6.4	The learner will carve his design on the linoleum using either the intaglio or the relief method. a. intaglio - the design is carved below the surface. b. relief - the background is carved below the surface.	6.4	Carve your design on the linoleum using the tools supplied by the instructor.

COURSE GRAPHIC COMMUNICATIONS

7th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0 cont'd.

LINOLEUM BLOCK PRINTING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.5	The learner will print the design, from the block, using the proof press.	6.5	Using the proof press, make a proof of the block. The proof will be shown to the instructor for the marking of cuts to be corrected.
6.6	Given a test on the block printing tools, materials, and processes, the learner will answer the questions asked.	6.6	Complete the following: (a) Block printing was first practiced in the _____ century. (b) When a design is cut in intaglio on a linoleum block, the _____ provides the background for the design. (c) _____ paper is used to transfer the design to the linoleum. (d) The design appears in _____ on the linoleum. (e) The designs for block printing should be prepared on _____ paper. (f) Hand-carved wood blocks were first used to reproduce _____ _____ (g) The _____ is used to make fine line cuts on the linoleum. (h) A _____ is used to secure the block for insuring safety while cutting the linoleum.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 6.0

I. P. No.	M/M No.	Method / Media Selection
6.1	6.1.1	Existing Designs
		Artwork
		Materials
6.2	6.2.1	Demonstration
		Tools
		Materials
		Text
6.3	6.3.1	Tool Display
		Demonstration
6.4	6.4.1	Lecture
		Demonstration
		Tools
		Materials
6.5	6.5.1	Lecture
		Demonstration
		Text
		Equipment
		Material
6.6	6.6.1	Examination Sheet

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 7.0 — PHOTOGRAPHY

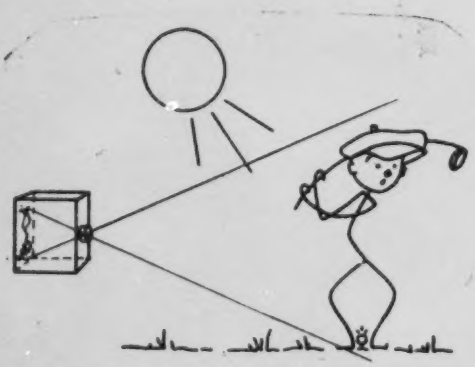
The learner will demonstrate his understanding of photography by written examination and by performance. He will, at 75% proficiency, (1) Define the basic fundamentals of photography, (2) Construct a pin-hole camera, (3) Load and expose the sheet film, (4) Develop the film and (5) Make a contact print of the negative.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.1	From lectures and demonstrations, the learner will, by written examination, state his knowledge of the following: (1) Photography: the act of producing images on sensitized surfaces by the action of light. (2) The basic parts of a simple camera are: (a) lens (b) shutter (c) body (d) film holder (3) Film: a transparent celluloid stock coated with a light sensitive material. (4) The three (3) chemical solutions used in the development of film and photo paper are: (a) developer (b) shortstop (c) fixer (5) The procedure of developing film by the tray method. (6) The use of the contact printer. (7) The procedure of making contact prints.	7.1	Complete the following statements: (1) Photography is the act of _____ _____. (2) The four (4) basic parts of a simple camera are: (a) (b) (c) (d) (3) _____ is a transparent celluloid material which has been coated with a light sensitive material. (4) The three (3) chemical solutions, at a ideal temperature of 68 F., used in the process of developing film are: (a) (b) (c) (5) The negative is placed on a _____ printer to create a latent image on the photo paper.

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 7.0 cont'd. PHOTOGRAPHY

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.2	The learner will construct a pin-hole camera from directions and construction methods given by the instructor.	7.2	Construct a pin-hole camera.
7.3	The learner will load the camera with film in the darkroom and expose his film to sunlight using his choice of subject.	7.3	Load your film in the camera and expose the film in sunlight on your choice of subject.
7.4	The learner will develop the sheet film.	7.4	(a) Give the instructor an oral listing of the procedures for developing film in the darkroom. (b) Develop the film. Using a contact printer, expose the photo paper and develop the print.



Light is reflected from subject to film

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 7.0

I. P. No.	M/M No.	Method / Media Selection
7.1	7.1.1	Lecture
		Text
		Demonstration
		Tools
		Materials
		Examination Sheet
7.2	7.2.1	Lecture
		Chalkboard Demonstration
		Handout Sheet
		Tools
		Materials
7.3	7.3.1	Lecture
		Demonstration
		Equipment
		Materials
7.4	7.4.1	Lecture
		Demonstration
		Equipment
		Materials

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0

BOOKBINDING

The learner, with 75% proficiency, will define in writing, two (2) major bookbinding processes. He will also construct a photo album and a small pocket notebook, using the padding process, and gold stamp each. He will be tested, in writing, on tools, materials, and processes.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.1	Given the names and definitions of the two (2) major hand binding processes, the learner will define: (a) signature binding (b) loose leaf binding	8.1	Define on the examination sheet issued you, the following two (2) terms: (a) signature binding (b) loose leaf binding
8.2	The learner will layout, cut, and bind a photo album from the materials and directions given by the instructor.	8.2	Using the materials and layout directions issued by your instructor, cut and bind a photo album.
8.3	The learner will gold stamp letters on the completed album.	8.3	Place desired letters in the holder of the gold stamp machine, pre-heat the letters to the desired temperature, and emboss the letters on the album.
8.4	The learner will construct a small pocket notebook using the padding process. He will emboss the cover by gold stamping.	8.4	Using the layout and materials issued by the instructor, construct and gold stamp the notebook cover.
8.5	The learner will answer questions pertaining to tools, materials, and processes of bookbinding.	8.5	Complete the following statements: 1. Book cloth is used to cover the _____ board. 2. _____ screws hold the album together. 3. _____ compound secures loose paper into a pad. 4. _____ paper is a decorative, heavy paper used to cover the binder's board. 5. A _____ folder removes air bubbles from the cover.

COURSE GRAPHIC COMMUNICATIONS
7th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 8.0 cont'd. BOOKBINDING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
			6. _____ board is a thin cardboard. 7. Type is placed in the holder of the gold stamp machine _____ to _____ upside down. 8. The _____ side of the foil will be placed in the upward position when gold stamping.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 8.0

I. P. No.	M/M No.	Method / Media Selection
8.1	8.1.1	Lecture
		Text
		Research Media Center
		Examination Sheet
8.2	8.2.1	Lecture
		Chalkboard Demonstration
		Handout Sheet
		Tools
		Materials
8.3	8.3.1	Lecture
		Demonstration
		Equipment
		Materials
8.4	8.4.1	Lecture
		Demonstration
		Handout Sheet
		Tools
		Materials
8.5	8.5.1	Examination Sheet

GRAPHIC COMMUNICATIONS

8th GRADE STUDENTS

ACCREDITATION NO. 5832

PROGRAM PATH: CAREER EDUCATION, EXPLORATORY, PRE-COLLEGE

PREREQUISITE(S): 8th GRADE STUDENT

LENGTH OF COURSE: 9 WEEKS

COURSE DESCRIPTION:

An introduction to four (4) processes in graphic arts communications: Technical Sketching, Silk Screening, Letterpress and Photography. This course offers a continuation of the seventh (7th) grade activities stressing more complex procedures in these areas.

GRAPHIC COMMUNICATIONS
8th GRADE

1.0 Orientation

2.0 Safety

3.0 Occupations

4.0 History

5.0 Technical Sketching

6.0 Silk Screening

7.0 Paper and Inks

8.0 Letterpress

9.0 Photography

NOTE: This course was designed for a nine (9) week period of study. It will be the individual instructor's decision as to how extensively he covers the materials, depending on his own particular "time allotted" situation. This course was designed to follow a path from fundamental processes to an "in depth" study in sequential order. The instructor should not reverse the order in which The Terminal Performance Objectives are written, but should teach as far into each as time will permit.

COURSE GRAPHIC COMMUNICATIONS

8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 1.0

ORIENTATION

The learner will, with 90% proficiency, list the responsibilities and conduct expected of him, orally recall the grading procedures, and list the areas to be covered in this graphics course.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
1.1	The learner will write a paragraph listing the responsibilities and conduct expected of him in the graphics laboratory. This paragraph will include 90% of the items as previously given by the instructor. A. Conduct 1. No horseplay 2. Take care of all equipment 3. Use the correct tools 4. Be a good housekeeper 5. Observe all safety rules B. Areas 1. Safety 2. Occupations 3. History 4. Technical Sketching 5. Stencil Silk Screening 6. Paper and Inks 7. Letterpress 8. Photography	1.1	Write a paragraph listing the responsibilities and conduct expected of you while in the graphics laboratory.
1.2	The learner will orally recall the following areas to be graded in this course of study. 1. Projects 2. Tests 3. Written work (other than tests) 4. Daily performance	1.2	State the four (4) areas to be considered in arriving at a final grade.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 1.0

I. P. No.	M/M No.	Method / Media Selection
1.1	1.1.1	Lecture
		Chalkboard Demonstration
		Handout Sheet
1.2	1.2.1	Lecture
		Handout Sheet

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 2.0

SAFETY

The learner will write ten (10) of the fifteen (15) General Safety Rules of the graphic communications laboratory, define in writing the term "Safety Consciousness", and will demonstrate his ability to follow the rules of good housekeeping in the laboratory.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
2.1	The learner will list ten (10) of the fifteen (15) General Safety Rules of the graphics communication laboratory. 1. No horseplay 2. No running in the laboratory 3. Keep your tools clean 4. Keep volatile materials in proper containers 5. Wear proper clothing 6. Keep the floor area clean 7. Wear safety equipment where required 8. Know the fire drill procedures 9. Keep safety guards in place 10. Use the proper tool 11. Get instructor's permission before operating any machinery 12. Know the location and use of all fire extinguishers 13. Report all malfunctions or breakage to the instructor 14. Report any injuries at once 15. Report any unsafe practices at once	2.1	Write fifteen (15) General Safety Rules from memory.
2.2	The learner will define in writing the term "Safety Consciousness" as "each individual's responsibility to protect himself and others in any and all laboratory situations."	2.2	Define in writing the term "Safety Consciousness".
2.3	The learner will demonstrate, by daily actions, his ability to follow the rules of good housekeeping. 1. Keep tools clean 2. Clean the equipment properly 3. Store all tools properly 4. Clean assigned area	2.3	You will be graded on your willingness and ability to follow the four (4) rules of good housekeeping. 1. Keep tools clean 2. Clean the equipment properly 3. Store all tools properly 4. Clean assigned area

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 2.0

I. P. No.	M/M No.	Method / Media Selection
2.1	2.1.1	Lecture
		Handout Sheet
2.2	2.2.1	Lecture
2.3	2.3.1	Lecture
		Demonstration
		Tools

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 3.0

OCCUPATIONS

With 75% proficiency, the learner will in writing, list the occupational opportunities available in the specific areas to be studied at this grade level.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
3.1	The learner will list eight (8) occupations or apprentice programs available in the field offered in this study period. 1. Compositor 2. Layout man 3. Proofreader 4. Linotype- Intertype operator 5. Monotype operator 6. Pressmen 7. Stereotyper 8. Photoengraver	3.1	Through individual research, write eight (8) opportunities for employment available in the graphic arts area you will be studying.
3.2	The learner will research a field of particular interest and write at least a two-hundred (200) word composition in that area relating to the program offered.	3.2	Using textbooks and the school media center, you will write a composition of at least two-hundred (200) words, listing the qualifications and advantages offered by serving in a chosen area.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 3.0

I. P. No.	M/M No.	Method / Media Selection
3.1	3.1.1	Lecture
		Media Center
		Text
3.2	3.2.1	Text
		Media Center

COURSE GRAPHIC COMMUNICATIONS

8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 4.0 — GENERAL HISTORY

With 75% accuracy, the learner will recall in writing, a brief history of printing methods, printing papers, and inks. He will demonstrate, in writing, his understanding of the basic principles of photography.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
4.1	The learner will, in writing, define these three (3) ancient means of graphically communicating: 1. cuneiform - wedge shaped letters 2. hieroglyphics - picture writing 3. alphabet - phonetic characters	4.1	Define three (3) of the ancient means of written communication using your text and media center. 1. cuneiform 2. hieroglyphics 3. alphabet
4.2	The learner will, in writing, research the early history of book printing.	4.2	Using the media center and your textbook, write a two-hundred (200) word history of book printing from scroll writing to folded-bound books.
4.3	The learner will, by written examination, identify the following three (3) types of ancient materials used prior to paper: 1. Papyrus - writing material made from fibers 2. Parchment - writing material made from skins of sheep and goats 3. Vellum - finest grade of parchment	4.3	Identify each by matching: ____Papyrus — 1. finest grade of parchment paper ____Parchment — 2. writing material made from fibers ____Vellum — 3. writing materials made from skins of sheep and goats
4.4	Given two (2) lists, one of famous printers and one of their accomplishments, the learner will match the two (2) lists.	4.4	Match the following: ____ Mergenthaler — 1. started publication known as the Pennsylvania Gazette. ____ Ben Franklin — 2. invented Moveable type ____ J. Guttenberg — 3. invented Linotype machine

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 4.0 cont'd.

GENERAL HISTORY

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
		4.4	___ Stephen Daye 4. set up first press in U. S. A. at Harvard.
4.5	The learner will, in writing, identify the three (3) major ingredients of ink. 1. pigment - coloring 2. vehicle - body 3. drier - catalyst	4.5	Match the following ink ingredients to their definition: ____ pigment 1. body ____ vehicle 2. catalyst ____ drier 3. coloring
4.6	The learner will list, in order, the fundamental processes involved in taking and developing a photograph. (a) load camera (b) take picture (c) develop film (d) print picture	4.6	Using your text, list in order the fundamental process of picture taking and developing.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 4.0

I. P. No.	M/M No.	Method / Media Selection
4.1	4.1.1	Lecture
		Text
		Media Center
		Handout Sheet
4.2	4.2.1	Lecture
		Text
		Media Center
4.3	4.3.1	Lecture
		Text
		Media Center
		Examination Sheet
4.4	4.4.1	Lecture
		Text
		Media Center
		Examination Sheet
4.5	4.5.1	Lecture
		Media Center
		Text
		Examination Sheet
4.6	4.6.1	Lecture
		Text

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 5.0 TECHNICAL SKETCHING

The learner will demonstrate through performance examination, his ability to utilize the technique of making a drawing without the use of instruments. He will also identify certain drafting tools and occupations that use them. The learner will perform these objectives with 80% accuracy.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.1	The learner will demonstrate on paper, five (5) principles of freehand sketching as given by the instructor.	5.1	On paper, demonstrate the following sketching techniques: 1. Horizontal lines 2. Vertical lines 3. Inclined lines 4. Arcs and Circles 5. Proportions
5.2	Shown pictures or examples of basic drafting tools, the learner will identify them on paper with 80% accuracy.	5.2	Identify the following drafting tools: 1. T-Square 2. Drawing Board 3. Architect's Scale 4. Eraser 5. Erasing Shield 6. Triangles 7. Compass 8. Dividers 9. French Curve (irregular) 10. Drawing pencils
5.3	Identify in writing three (3) drafting occupations from the list provided by the instructor.	5.3	Briefly describe in writing the job responsibilities of the following occupations for Draftsmen: 1. Engineering 2. Architecture 3. Industrial Arts Drafting Instructor

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 5.0

I. P. No.	M/M No.	Method / Media Selection
5.1	5.1.1	Lecture
		Text
		Chalkboard Demonstration
5.2	5.2.1	Visual Aids
		Tools
		Lecture
5.3	5.3.1	Lecture
		Media Center
		Handout Sheet

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 6.0 STENCIL SILK SCREENING

With 75% proficiency, the learner will demonstrate his ability to design, cut, and print a stencil using the silk screen process.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.1	The learner will select a design and cut a stencil from suitable paper.	6.1	Select a design to be approved by the instructor and prepare the stencil.
6.2	The learner will mask and fasten the stencil to the silk screen frame and prepare the frame for printing.	6.2	Using the materials given you by your instructor, attach the stencil to the frame and prepare for printing.
6.3	The learner will ink and print a silk screen stencil.	6.3	Ink and print your stencil on approved medium.
6.4	The learner will clean and prepare the frame for future use.	6.4	Using the cleaning materials provided, clean and properly prepare the frame.
6.5	The learner will successfully complete the given test on silk screen materials, tools, and processes.	6.5	Complete the following: 1. _____ printing is a silk screen printing process. 2. A _____ is used to force the ink through the screen. 3. The most common tool used to cut stencils is a _____ knife. 4. A good silk screen ink solvent is _____ 5. A new silk covering should be _____ before using. 6. Six XX silk is a _____ mesh screen.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 6.0

I. P. No.	M/M No.	Method / Media Selection
6.1	6.1.1	Lecture
		Existing Pictures
		Artwork
		Tools
		Materials
		Text
6.2	6.2.1	Demonstration
		Text
		Equipment
		Materials
6.3	6.3.1	Demonstration
		Text
		Equipment
		Material
6.4	6.4.1	Lecture
		Equipment
		Material
6.5	6.5.1	Examination Sheet

COURSE GRAPHIC COMMUNICATIONS

8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 7.0

PAPERS AND INKS

With 75% proficiency, the learner will list the materials and processes involved in paper and ink manufacture, and will identify their classification, style, or weight.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.1	The learner will write the manufacturing processes involved in making finished paper.	7.1	Write the manufacturing process involved in making paper. 1. vegetable fibers 2. matting chemicals 3. water
7.2	The learner will identify eight (8) basic classes of paper used in the graphics laboratory. 1. Newsprint 2. Book papers 3. Writing papers 4. Cardboards 5. Coverstock 6. Onionskin 7. Carbon paper 8. Tympan paper 9. Blotting paper 10. Gummed paper	7.2	Identify orally to the instructor eight (8) paper samples given you.
7.3	The learner will list the basic ingredients of inks and briefly describe the ink manufacturing process. 1. vehicle 2. driers 3. pigment	7.3	Write a short paragraph on the manufacturing process of ink and list the basic ingredients using your text book as a guide.
7.4	The learner will visually identify three (3) different types of ink. 1. Letter press 2. Drawing ink 3. Silk screen	7.4	Visually identify three (3) different inks used in the laboratory.

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 7.0 cont'd. PAPERS AND INKS

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.5	The learner will successfully complete the given examination on paper and ink ingredients and manufacturing processes.	7.5	1) Paper was first manufactured in _____ 2) The continuous process of paper manufacturing was developed in _____ 3) The three (3) basic ingredients of paper are _____ , _____ , and _____ . 4) A paper making _____ is a frame covered with copper screen. 5) Five of the most common kinds of paper used by print shops are: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6) The basic size of bond paper is _____ 7) Define the following ink terms: (a) pigment (b) vehicle (c) drier 8) Define absorption and evaporation in ink drying.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 7.0

I. P. No.	M/M No.	Method / Media Selection
7.1	7.1.1	Lecture
		Media Center
		Handout Sheet
7.2	7.2.1	Lecture
		Samples
7.3	7.3.1	Lecture
		Text
		Media Center
7.4	7.4.1	Lecture
		Samples
7.5	7.5.1	Examination Sheet

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0

LETTERPRESS PRINTING

The learner, with 75% accuracy, will identify by writing and by performance , the operational processes, hand tools, and equipment used in the operation of the pilot press. He will show by written examination, the placement of type characters in the California Job Case and utilize this knowledge in practical application.

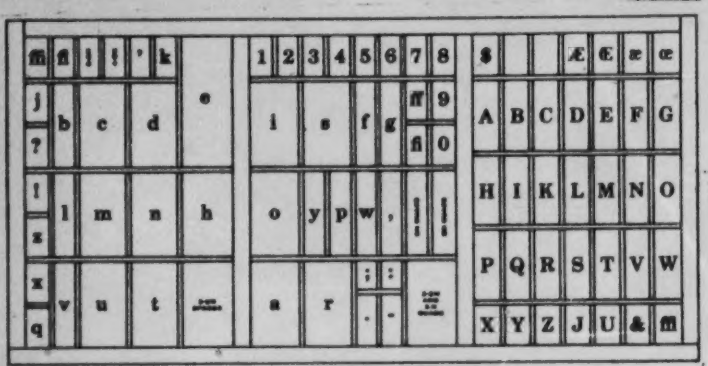
NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.1	The learner will identify, in writing, these twelve (12) basic tools and basic items of equipment used in the printing laboratory: (1) Composing Stick (2) Galley (3) Brayer (4) Line Gauge (5) Quoins (6) Quoin Key (7) Gauge Pins (8) Planer (9) Chase (10) Furniture (11) Reglet (12) Proof Press	8.1	Identify, in writing, the function of these twelve (12) basic tools and basic items used in the printing laboratory.
8.2	The learner will identify, in writing, the function of these major parts of the hand platen press. (1) Platen (2) Hand Operating Lever (3) Ink Disc (4) Bed (5) Delivery Board (6) Feed Board (7) Grippers (8) Top Chase Clamp	8.2	Identify and define in writing the functions of each of the main parts of the platen press. (1) Platen (2) Hand Operating Lever (3) Ink Disc (4) Bed (5) Delivery Board (6) Feed Board (7) Grippers (8) Top Chase Clamp

COURSE GRAPHIC COMMUNICATIONS
8th Grade

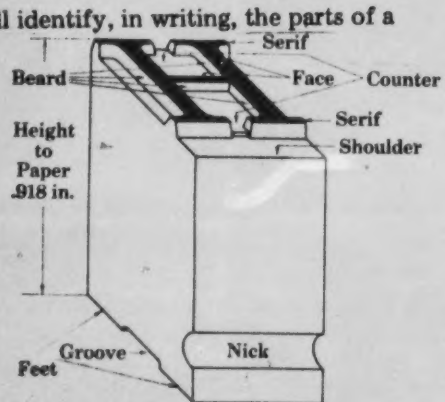
TERMINAL PERFORMANCE OBJECTIVE NO. 8.0 cont'd.

LETTERPRESS PRINTING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.3	The learner, given a layout of the California Job Case, will indicate in writing, the placement of the various characters.	8.3	Write the correct character in each compartment on a blank layout sheet of the California Job Case.
8.4	The learner will list in writing four (4) kinds of moveable type. (1) Foundry Type (2) Mono Type (3) Wood Type (4) Brass Type	8.4	List in writing, the four (4) kinds of moveable type.
8.5	The learner will identify, in writing, the parts of a piece of type.	8.5	Given an illustration of a piece of type, identify in writing each part.



Lay of California Job Case



COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0 cont'd.

LETTERPRESS PRINTING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.6	Given an examination on moveable type and the pilot press, the learner will correctly answer, in writing, the test questions.	8.6	Answer, in writing, the following test questions: (1) Of what use is a gauge pin? (2) Where do you apply the ink to a pilot press? (3) What is a good solvent for cleaning the press? (4) On what side of the California Job Case are the capitals located? (5) For what kind of printing is brass type used? (6) How is a type character measured? (7) What use are the grippers? (8) What is the use of tympan paper in letterpress printing? (9) Strip spacing material less than six (6) points thick is called a (10) Strip spacing material more than six (6) points thick is called a (11) Which is the larger type - fourteen (14) or eighteen (18) points? (12) Define the printing term "furniture".

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0 cont'd.

LETTERPRESS PRINTING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.7	The learner will hand set type, using a composing stick and characters from the California Job Case.	8.7	Using a composing stick, characters from the California Job Case, and the correct spacing material, properly set up a job assigned by your instructor.
8.8	The learner will pull a proof using the brayer and proof press. The learner will correct any mistakes after checking the proof.	8.8	With the approved type in the composing stick, pull a proof using the brayer and proof press. Make any corrections needed after checking the proof.
8.9	The learner will lock the type in a chase, ink the disc, set the gauge pins and run a finished job.	8.9	Using the instructor's approved assignments, lock the type in the chase. Ink the press, place the lock-up on the bed of the press, and make an impression on the tympan paper. Set the gauge pins for the desired stock to be printed.
8.10	The learner will properly clean the pilot press and correctly distribute the type characters back into the California Job Case.	8.10	Clean the pilot press with the cleaning materials issued and correctly distribute the type in the job case.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 8.0

I. P. No.	M/M No.	Method / Media Selection
8.1	8.1.1	Lecture
		Text
		Tools
		Handout Sheet
8.2	8.2.1	Lecture
		Text
		Demonstration
		Handout Sheet
8.3	8.3.1	Text
		Handout Sheet
8.4	8.4.1	Lecture
		Text
8.5	8.5.1	Lecture
		Handout Sheet
8.6	8.6.1	Examination Sheet
8.7	8.7.1	Demonstration
		Text
		Equipment

Terminal Performance Objective - 8.0 cont'd.

I. P. No.	M/M No.	Method / Media Selection
8.8	8.8.1	Demonstration
		Text
		Equipment
		Materials
8.9	8.9.1	Demonstration
		Equipment
		Material
8.10	8.10.1	Demonstration
		Equipment
		Material

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 9.0 PHOTOGRAPHY

The learner, with 75% proficiency, will in writing, demonstrate his knowledge of photography fundamentals, including tools, materials, and processes. The learner will also expose and develop a roll and make contact prints from the negative.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
9.1	The learner will demonstrate his knowledge of photography fundamentals on a written examination which will include the following: (1) Definition of photography (2) The parts of a simple camera (a) shutter (b) lens (c) body (d) film holder (3) The common B & W film, such as: (a) Verichrome (b) Plus X (c) Tri - X (4) The adjustment for different outdoor lighting. (5) The three (3) chemical solutions used in the development of film and prints which are: (a) developer (b) shortstop (c) fixer (6) The procedures of developing roll film (7) The procedure for making contact prints (8) The use of contrast paper in photographic printing.	9.1	Define, using brief written statements, the following photography terminologies and/ or processes: (1) Define photography (2) List four (4) parts of a simple camera. (3) Name three (3) common black and white roll films. (4) How should one adjust the camera for deep shaded areas? (5) What are three (3) chemical solutions used in development of film and prints? (6) Outline in brief sentences the procedure for developing film by the tank method. (7) Outline in brief sentences the procedure in making contact prints. (8) Name two grades of printing papers and explain the difference between the two.
9.2	The learner will expose a roll of film outdoors under the following conditions: A - very bright B - normal C - deep shade	9.2	Expose a roll of film outdoors under the following conditions: A - very bright B - normal C - deep shade

COURSE GRAPHIC COMMUNICATIONS
8th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 9.0 cont'd.

PHOTOGRAPHY

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
9.3	The learner will develop an exposed roll of film using normal time, temperature, and developers.	9.3	Develop a roll of exposed film using standard procedures given by your instructor.
9.4	The learner will make contact prints using two (2) or more different grades of paper.	9.4	Make several contact prints as directed by the instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 9.0

I. P. No.	M/M No.	Method / Media Selection
9.1	9.1.1	Lecture
		Text
		Media Center
		Demonstration
		Tools
		Materials
		Examination Sheet
9.2	9.2.1	Lecture
		Tools
		Material
		Media Center
9.3	9.3.1	Lecture
		Demonstration
		Equipment
		Material
		Text
		Media Center
9.4	9.4.1	Lecture
		Media Center
		Demonstration
		Equipment
		Materials

GRAPHICS IA

9th GRADE STUDENTS

ACCREDITATION NO. 5833A

PROGRAM PATH: EXPLORATORY

PREREQUISITE(S): GRAPHICS 7 OR 8

LENGTH OF COURSE: 1 SEMESTER

COURSE DESCRIPTION:

A general course in graphic communications consisting of approximately six weeks each of Printing, Silk Screening, and Photography. Printing activities include type setting, proof reading, hand letter press operation and stapling. Silk Screening is a continuation of the activities of the eight grade silk screening program with more advanced processes and techniques in multicolored printing. Photography is to give the student sufficient study and varied practical experience in common procedures of the proper use of cameras, photography materials, and other dark room equipment.

GRAPHIC COMMUNICATIONS IA
9th GRADE

1.0 Orientation

2.0 Safety

3.0 Occupational Opportunities

4.0 Printing Tools and Equipment

5.0 Moveable Type

6.0 Space Composition

7.0 Hand Setting Type

8.0 Proofing and Lock-up

9.0 Operation of Hand-Operated Platen Press

10.0 Photography

11.0 Principles of Lithography

12.0 Offset Plate Making

13.0 Offset Press Operation

14.0 Silk Screening

15.0 Rubber Stamping

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 1.0

ORIENTATION

The learner will, with 80% accuracy, list the classroom responsibilities expected of him. The learner will also demonstrate, orally, his knowledge of the grading procedures used in this course of study.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
1.1	The learner will write and define the responsibilities (listed below) expected of him in the general graphics communications laboratory: 1. Punctuality 2. Citizenship 3. Safety 4. Behavior 5. Good Housekeeping	1.1	Write and define five (5) areas of responsibility expected of you as a learner.
1.2	The learner will orally recall the following areas to be graded in this course of study: 1. Projects 2. Tests 3. Written Work (other than tests) 4. Daily Performance	1.2	State the four (4) areas to be considered in arriving at a final grade.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 1.0

I. P. No.	M/M No.	Method / Media Selection
1.1	1.1.1	Lecture
		Instruction Sheet
1.2	1.2.1	Lecture
		Chalkboard Demonstration

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 2.0 — GENERAL SAFETY

The learner will, with 90% plus proficiency, write his understanding of the General Safety Rules of the graphics communications laboratory. He will demonstrate his ability to follow the rules of good housekeeping in the laboratory.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
2.1	The learner will list the General Safety Rules given by the instructor. 1. The instructor will approve all work to be accomplished. 2. Use common sense. Horseplay is forbidden. 3. Read safety signs. 4.. Secure all long hair and loose clothing. 5. No tools or materials placed in the mouth. 6. Wipe up all spilled solutions. 7. All accidents shall be reported immediately to the instructor. 8. Place dirty and used rags in the appropriate containers. 9. Do not talk to the operator of a machine. 10. Report any unsafe situations or machines. 11. Wear safety glasses when appropriate. 12. Do not experiment or use tools and equipment without proper instruction. 13. Never use the large paper cutter without the instructor's permission. Check the lock mechanism after each cut. 14. Always use the proper tpp?s and equipment. 15. Know the location and use of all fire extinguishers. 16. Know the fire drill rules and regulations.	2.1	Write the General Safety Rules given by the instructor.
2.2	The learner will, by daily actions, perform the rules of good housekeeping. 1. Keep the tools clean. 2. Clean the equipment properly. 3. Store all tools in their proper area. 4. Clean the assigned area.	2.2	Clean your equipment and tools. Place the tools in their proper storage racks and sweep your assigned area.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 2.0

I. P. No.	M/M No.	Method / Media Selection
2.1	2.1.1	Instruction Sheets
2.2	2.2.1	Observation By Instructor

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 3.0 — OCCUPATIONS

With 75% proficiency, the learner will in writing, list the occupational opportunities available in the specific areas to be studied at this grade level.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
3.1	The learner will list eight (8) occupational or apprentice programs available in the field offered in this study period. 1. Compositor 2. Layout Man 3. Proofreader 4. Linotype - Intertype operator 5. Monotype - Operator 6. Pressmen 7. Stereotyper 8. Photoengraver	3.1	Through individual research, write eight (8) opportunities for employment available in the graphic arts areas you will be studying.
3.2	The learner will research a field of particular interest and write at least a two-hundred (200) word composition in that area relating to the program offered.	3.2	Using textbooks and the school media center, you will write a composition of at least two-hundred (200) words, listing the qualifications and advantages offered by serving in a chosen area.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 3.0

I. P. No.	M/M No.	Method / Media Selection
3.1	3.1.1	Lecture
		Media Center
		Text
3.2	3.2.1	Text
		Media Center

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 4.0

PRINTING TOOLS AND EQUIPMENT

The learner, with 75% proficiency, will identify and explain in writing, the function of the common hand tools and will orally identify those pieces of equipment located in the graphic communications laboratory.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
4.1	The learner, given a list of hand tools and/or equipment unique to the printing trade, will identify and explain in writing the function of each. 1. Composing Stick 2. Galley 3. Brayer 4. Line Gauge 5. Quoins 6. Quoin Key 7. Gauge Pin 8. Planer 9. Proof Press 10. Chase 11. Furniture 12. Reglets	4.1	Identify, in writing, the function of each of the following hand tools and/or equipment. 1. Composing Stick 2. Galley 3. Brayer 4. Line Gauge 5. Quoin Key 6. Quoins 7. Gauge Pins 8. Planer 9. Proof Press 10. Chase 11. Furniture 12. Reglets
4.2	Given pictorial representations of the equipment in the graphic communications laboratory, the learner will orally identify and explain the purpose of each.	4.2	Orally identify and explain the function of each piece of equipment as illustrated on the instruction sheet given you by the instructor.

METHOD / MEDIA ANALYSIS

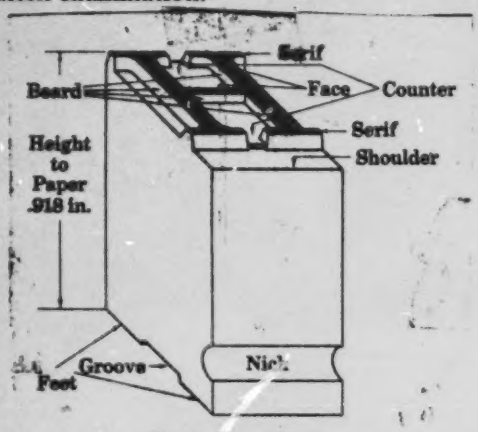
Terminal Performance Objective - 4.0

I. P. No.	M/M No.	Method / Media Selection
4.1	4.1.1	Instruction Sheets
4.2	4.2.1	Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 5.0 MOVEABLE TYPE

The learner will, with 75% proficiency on a written examination, demonstrate his knowledge of the parts of moveable type and how type is measured, purchased, and classified. The learner will also identify, in writing, various spacing materials and the placement of characters in the California Job Case.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.1	The learner, given a drawing illustrating the nomenclature of a piece of type, will identify those parts on a written examination.  Parts of a piece of type	5.1	Given a drawing illustrating the nomenclature of a type character, you will identify in writing, those parts.
5.2	The learner will demonstrate his knowledge of how type is measured on a written examination.	5.2	Complete the following statements by supplying the missing word or words: 1. All type is _____ of an inch high. 2. There are ___ picas to the inch. 3. There are ___ points to the inch. 4. There are _____ points to the pica. 5. There are ____ points to the nonpareil.

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0 cont'd.

MOVEABLE TYPE

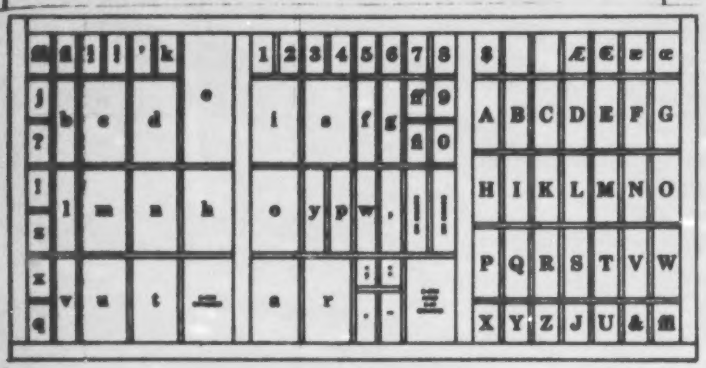
NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.3	The learner will, by written examination, demonstrate his knowledge of how foundry type is purchased and classified.	5.3	Complete the following statements by supplying the missing word or words: 1. Foundry type is purchased in assortments or _____ . 2. The complete range of sizes of one style of type is known as a _____ . 3. A number of series of type, having the same general characteristics of design, and bearing the same name, are said to be of that _____ .
5.4	The learner will, on a written examination, identify the various spaces and quads.	5.4	In the blanks provided, indicate the names of the different spaces and quads. Scheme of Foundry Quads and Spaces
5.5	The learner will demonstrate his knowledge of strip spacing materials by written examination.	5.5	Complete the following statements: 1. Strip materials that are less than six (6) points in thickness are called _____ . 2. Strip materials more than six (6) points in thickness are called _____ .

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0 cont'd.

MOVEABLE TYPE

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.6	Given a layout drawing of the California Job Case, the learner will, with 80% accuracy, indicate in writing, the placement of each character.	5.6	Write in the correct characters on the layout of the California Job Case given you by the instructor.



METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 5.0

I. P. No.	M/M No.	Method / Media Selection
5.1	5.1.1	Instruction Sheets
5.2	5.2.1	Lecture
5.3	5.3.1	Lecture
5.4	5.4.1	Textbook Lecture
5.5	5.5.1	Textbook Lecture
5.6	5.6.1	Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0

SPACE COMPOSITION

The learner will correctly answer three (3) questions concerning the use or spaces and quads on a written examination. The learner will also, and with 50% accuracy, list four (4) rules related to the division of the last word of a line into syllables.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.1	The learner will demonstrate his knowledge of how spaces and quads are used by written examination.	6.1	Indicate, in the spaces provided, the correct sizes and names of the spaces or quads required when setting small type: a. The _____ is used most often to space between words. b. An _____ is used most often to space between sentences. c. The _____ is used most often to begin paragraphs.
6.2	The learner will list the following four (4) rules concerning the division of the last word of a line into syllables. 1. The word must be divided correctly between syllables and a hyphen placed after the first section of the word. 2. A syllable of one letter is never separated from the rest of the word. 3. Syllables of two or three letters are not commonly separated in wide measure composition. 4. Hyphens are not placed at the ends of a number of consecutive lines.	6.2	List four (4) rules pertaining to the division of the last word in a line of a paragraph. 1. 2. 3. 4.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 6.0

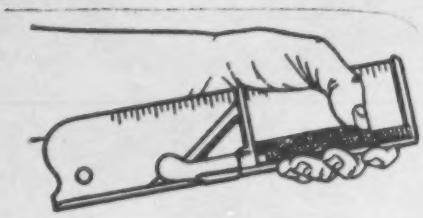
I. P. No.	M/M No.	Method / Media Selection
6.1	6.1.1	Lecture
		Equipment
		Handout Sheet
6.2	6.2.1	Textbook
		Lecture
		Chalkboard

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 7.0

HAND SETTING TYPE

The learner will demonstrate (orally) the correct use of the composing stick and (by practical exercise) his ability to set type with accuracy of 90%.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.1	**The learner will, by verbal demonstration to the instructor, prove his ability to correctly use the composing stick.**  How to Hold Composing Stick	7.1	Demonstrate to the instructor, verbally, the correct methods for using the composing stick.
7.2	**The learner will demonstrate his ability to set type by performing a practical exercise as assigned by the instructor.**	7.2	You will, given a type setting exercise by the instructor, prove your ability to set a job by correctly using the composing stick, type, and spacing materials used for justification.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 7.0

I. P. No.	M/M No.	Method / Media Selection
7.1	7.1.1	Textbook
		Demonstration
		Tools And Equipment
7.2	7.2.1	Instruction Sheets
		Tools And Materials

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0

PROOFING AND LOCK–UP

The learner will, by written examination and/or practical exercise, demonstrate how to handle and tie, proof, clean, correct and lock forms. A proficiency of 80% is expected of the student.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.1	**The learner, having completed a practical type-setting exercise, will demonstrate to the instructor the correct methods used to tie-up a locked form.**	8.1	Demonstrate to the instructor the correct methods that should be used to tie-up a previously assigned composition assignment.
8.2	**The learner will, by written examination, name the two (2) following methods for proofing a composition:** **1. The planner method.** **2. The proof-press method.**	8.2	Name, in writing, the two most accepted methods for proofing a composition.
8.3	**The learner will, by practical exercise and written examination, demonstrate his knowledge of how to clean and correct composition with 90% proficiency.**	8.3	1. Having set and tied a composition, you are to submit a revised or final proof to the instructor with the type which has been cleaned. 2. Place a "T" in the blank before each statement if the statement is true, or an "F" if the statement is false. ___ 1. Dirty type causes unnecessary work for the composer. ___ 2. Type cleaner should be poured directly onto the set type. ___ 3. A cloth, rather than a brush, should be used first to remove ink from the surface of the characters. ___ 4. It is a good idea to never use sharp pointed tweezers to make corrections. ___ 5. A proof having errors is often referred to as a "dirty proof".

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0 cont'd.

PROOFING AND LOCK-UP

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.4	The learner will, by written examination, be capable of identifying the following tools that are displayed by the instructor: 1. Chase 2. Imposing Stone 3. Furniture 4. Reglets 5. Quoins 6. Quoin Key 7. Planner Block 8. Galley	8.4	Identify, in writing, the following tools and equipment used to impose and lock forms as displayed by the instructor. 1. Chase 2. Imposing Stone 3. Furniture 4. Reglets 5. Quoins 6. Quoin Key 7. Planner Block 8. Galley
8.5	The learner will, with 80% proficiency, write and perform the following procedures for locking-up a form: 1. Place the form in the chase. 2. Surround the form with furniture. 3. Fill in with furniture. 4. Insert the quoins. 5. Remove string and fit the quoins. 6. Plane the form. 7. Lock the form. 8. Test for lift.	8.5	1. Having set, tied, proofed and cleaned a form, you are to lock this form and present it to the instructor for approval. 2. List the correct procedure steps for locking-up a form.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 8.0

I. P. No.	M/M No.	Method / Media Selection
8.1	8.1.1	Textbook Demonstration Tools And Equipment
8.2	8.2.1	Textbook
8.3	8.3.1	Instruction Sheets
8.4	8.4.1	Textbook Instruction Sheets
8.5	8.5.1	Textbook Instruction Sheet Demonstration

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 9.0

OPERATION OF THE HAND-OPERATED PLATEN PRESS

The learner will, by written examination and practical exercise, prove his ability to know the different parts of the hand-operated platen press, set up the press for making a clean impression, and properly clean up the press when finished. A proficiency level of 80% is expected of the learner.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
9.1	The learner, given a diagram of the hand-operated platen press, will demonstrate his ability to recall the various parts of the press as instructed by the instructor.	9.1	Write the names of the various parts of the platen press on the diagram given you by the instructor.
9.2	The learner will demonstrate to the instructor, by practical application, the correct procedures used to apply ink to the ink disc of the hand-operated platen press.	9.2	Demonstrate, by practical application, the correct procedures to follow while inking the hand-operated platen press.
9.3	The learner will demonstrate, by practical exercise and to the instructor, the correct procedures for locking the type form on the bed and adjusting the grippers on the platen press.	9.3	Having locked-up a type form, you will install this form in the hand-operated platen press and adjust the grippers.
9.4	The learner will demonstrate, by practical exercise, the correct procedures for completing a make ready on the hand-operated platen press.	9.4	Do a complete make ready on the hand-operated platen press for the job you have locked-up.
9.5	The learner will make several (number to be determined by the learner and/or the instructor) impressions of the type form and will clean the press properly afterwards.	9.5	1. Print several impressions of your lock-up type form and submit to the instructor for his evaluation. 2. After printing several impressions of your locked-up type form, clean the press and the type form.
9.6	The learner will distribute the type to its proper storage space.	9.6	Distribute the type to its proper storage place.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 9.0

I. P. No.	M/M No.	Method / Media Selection
9.1	9.1.1	Textbook Instruction Sheets
9.2	9.2.1	Textbook Lecture Tools And Materials ..
9.3	9.3.1	Textbook
9.4	9.4.1	Textbook
9.5	9.5.1	Textbook
9.6	9.6.1	Textbook

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 10.0

PHOTOGRAPHY

The learner will, with 75% proficiency, in writing and practical application, express his knowledge of photographic fundamentals, including tools, materials, and processes. The learner will, with a given camera, load and expose a roll of film, process this film, make contact prints of all negatives, and enlarge the best negative.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
10.1	The learner will demonstrate, by testing, the basic fundamentals of photography, its tools, materials, and processes.	10.1	Briefly answer the following questions: (A) What is photography? (B) How should one utilize outdoor lighting? (C) What is the purpose of the shutter and the use of variable shutter speeds? (D) What is meant bt the ASA number of film? (E) What is the purpose of f/stops? (F) Describe the different procedures of loading and unloading 35mm film and 1/20 film? (G) What procedures are used in developing film by the tank method? (H) What is contact printing? (I) How do you control the amount of light in enlarging negatives? (J) What is meant by "test stripping"? (K) Is F-1 a low or high contrast paper? (L) Is contact paper and enlarging paper the same?
10.2	The learner will, using the procedures given by the instructor and the camera's manufacturer, load a camera with film.	10.2	Under subdued light, load the camera correctly, using the procedures given by the instructor and manufacturer of the camera.

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 10.0 cont'd.

PHOTOGRAPHY

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
10.3	The learner will expose a roll of film using the f/stops and shutter speed recommended by the film's manufacturer under the following conditions. A. Stationary Subject - normal light B. Moving Subject - normal light C. Landscape Subject - existing light D. Indoor Subject - existing light	10.3	Expose the film using the manufacturer's recommended f/stop and shutter speed under the conditions given by the instructor.
10.4	The learner, with procedures given by the instructor, will develop the roll of exposed film by the tank method.	10.4	Develop the exposed film using the tank method. Procedures of this development will be given by the instructor.
10.5	The learner will make contact prints of the negatives using procedures given by the instructor.	10.5	Contact prints will be made of the negatives developed.
10.6	The learner will make an enlargement of the best negative of the developed roll of film, using test strips of the different grades of enlarging paper utilized in the lab. The learner will choose the best test strip and make the enlargement.	10.6	By instructions given, test strips will be made, utilizing the different grades of enlarging paper, different exposure times, and f/stops. Choose the best test strip and make the enlargement.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 10.0

I. P. No.	M/M No.	Method / Media Selection
10.1	10.1.1	Textbook
		Reference Books
10.2	10.2.1	Demonstration
		Handout Sheets
		Materials
10.3	10.3.1	Reference Books
10.4	10.4.1	Instrcution Sheets
		Materials
		Equipment
10.5	10.5.1	Instruction Sheets
		Equipment
		Materials
10.6	10.6.1	Reference Book
		Equipment
		Materials

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 11.0

PRINCIPLES OF LITHOGRAPHY

The learner will demonstrate, by written examination, his knowledge of different printing processes and be able to identify the different parts of the offset press. The learner will be expected to achieve a proficiency level of 75%.

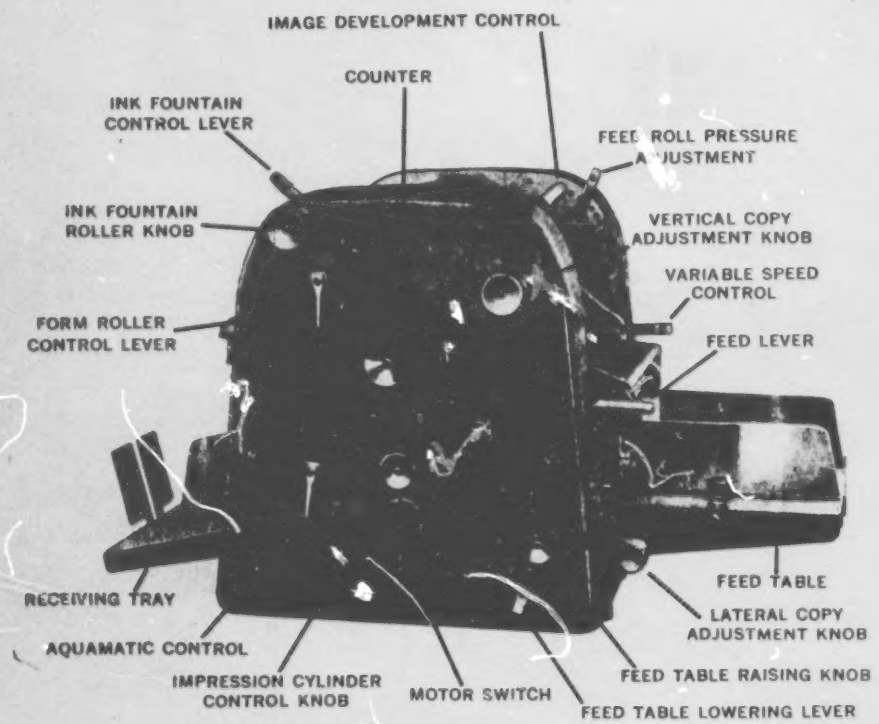
NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
11.1	**Given three (3) types of printing and definitions of their printing surfaces, the learner will correctly match them.**	11.1	Match the two (2) columns below: ____ Letterpress Printing — A. flat surface ____ Intaglio Printing — B. raised surface ____ Lithography — C. depressed surface
11.2	**The learner will, in writing, define the main principle of how non-image and image areas are kept separate in the offset printing process.**	11.2	Complete the following statement: Offset printing works on the principle that _____ and _____ do not mix.

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 11.0 cont'd.

PRINCIPLES OF LITHOGRAPHY

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
11.3	The learner, given a diagram of the offset press, will identify the various parts of the press in writing.	11.3	Given a diagram of the type of offset machine used in your laboratory, you will identify, in writing, the various parts.



METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 11.0

I. P. No.	M/M No.	Method / Media Selection
11.1	11.1.1	Lecture
11.2	11.2.1	Lecture
11.3	11.3.1	Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IA

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 12.0

OFFSET PLATE MAKING

The learner will demonstrate, by written examination, his knowledge of how to prepare presensitized aluminum plates for the offset press and, by practical application, how to prepare direct image (paper) masters for the offset press. A proficiency level of 75% is expected of the learner.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
12.1	The learner will list, in writing, the following procedures for masking-up a job to be exposed to an aluminum plate: 1) Make a layout page showing the location of desired margins. 2) Place negatives (face side up) and printed materials onto the layout page. 3) Place masking paper over layout page, and outline area to be removed (cut away). 4) Slip a cardboard between the layout page and the masking page. Use a knife to cut away windows ½ larger than areas to be printed. 5) Remove the cardboard and tape printed materials to the masking page.	12.1	Write a brief description, in the correct sequence, of how to prepare a masking job to be photographed.
12.2	The learner will, orally, describe to the instructor the correct procedures to be followed when exposing presensitized aluminum plates.	12.2	Describe, orally, the correct procedures to be followed when exposing presensitized aluminum plates.
12.3	The learner will list, in order of sequence, the following chemicals that are used to process presensitized aluminum plates. 1) Desensitizer 2) Lacquer 3) Process Gum	12.3	List, in order of sequence, the chemicals that you would use to process a presensitized aluminum plate that has been exposed.

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 12.0 cont'd. OFFSET PLATE MAKING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
12.4	The learner, with the instructor's approval, will prepare at least two (2) of the following means of transferring information onto the paper master: 1. Offset ball point pen 2. Rubber stamp 3. Design transfer (carbon paper) 4. Offset drawing fluid 5. Draftsman ruling pen 6. Typewriter	12.4	Prepare a direct image master using at least two of the following means of transferring information onto the paper master: 1. Offset ball point pen 2. Rubber stamp 3. Design transfer (carbon paper) 4. Offset drawing fluid 5. Draftsman ruling pen 6. Typewriter

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 12.0

I. P. No.	M/M No.	Method / Media Selection
12.1	12.1.1	Reference Books
		Demonstration
		Equipment And Handout
12.2	12.2.1	Lecture
12.3	12.3.1	Reference Books
		Lecture
12.4	12.4.1	Reference Books
		Lecture
		Demonstration
		Tools And Materials

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 13.0 OFFSET PRESS OPERATION

The learner will, orally, describe to the instructor the function of the three (3) basic systems of an offset press and how to set up, test, and run copies of a direct image master (ref. 7.4). A proficiency level of 75% is expected of the learner.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
13.1	**The learner will, orally, describe the function of each of the following three (3) basic systems of an offset printing press.:** **1) Paper Feeding System** **2) Moistening System** **3) Inking System**	13.1	Orally describe to the instructor the function of each of the following basic systems of an offset press.: 1) Paper Feeding System 2) Moistening System 3) Inking System
13.2	**In the presence of the instructor, the learner will set up, test, and run copies of the direct image master (ref. 12.4) made previously.**	13.2	Orally describe to the instructor the correct procedure for setting up, testing, and running copies of the direct image master (ref. 12.4) made previously.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 13.0

I. P. No.	M/M No.	Method / Media Selection
13.1	13.1.1	Textbook
		Lecture
13.2	13.2.1	Demonstration
		Equipment And Handout

COURSE GRAPHIC COMMUNICATIONS 1A
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 14.0 SILK SCREENING

The learner, at 75% proficiency, will demonstrate his ability to produce a silk screen print by the film method properly using the fundamental processes involved.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
14.1	The learner will prepare a design, indicating the desired color, for a one color silk screen print.	14.1	Select a design to be silk screen printed and prepare it for printing by drawing it to the desired size. Select the ink color to be used.
14.2	The learner will hand cut the design into the lacquer or water soluble film and remove these areas to be printed.	14.2	Cover the design with the type film used by the instructor. Cut with a stencil knife the areas to be removed from the lacquer film. Remove these areas.
14.3	The learner will attach the design to the silk and register the guides.	14.3	Using water or lacquer thinner, as directed by the instructor,adhere the design to the silk being sure to set the register guides.
14.4	The learner will ink the prepared screen, make a finished silk screen print, and clean the screen using the proper cleaning fluid.	14.4	Select the ink color to be used. Place the ink on the screen and force it through the mesh to the desired stock. Clean the screen with materials designated by the instructor.
14.5	Given a written examination, the learner will correctly answer the given questions.	14.5	Answer in writing, the following examination: 1) _____ film is lacquer solvable. 2) _____ film is water solvable. 3) A _____ knife is used for cutting the film. 4) Film cut too _____ will not adhere correctly. 5) Film is removed only from areas to be _____ 6) The backing is ready to be peeled when it feels _____ to touch.

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 14.0 cont'd.

SILK SCREENING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
		14.5	7) Light colored spots before peeling the film backing indicate areas not properly _____ . 8) The _____ is used to force the ink through the screen. 9) All excess ink left on the screen is discarded? 10) In cleaning the ink from the screen, a solvent such as ____ or _____ may be used. 11) What is the use of lacquer thinner in cleaning the screen? 12) What is meant by 10XX mesh in silk?

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 14.0

I. P. No.	M/M No.	Method / Media Selection
14.1	14.1.1	Instruction Sheets
14.2	14.2.1	Textbook
		Demonstration
		Tools And Materials
14.3	14.3.1	Textbook
		Demonstration
		Tools And Materials
14.4	14.4.1	Textbook
		Demonstration
		Tools And Materials
14.5	14.5.1	Textbook
		Reference Books

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 15.0

RUBBER STAMP MAKING

With 75% proficiency, the learner will demonstrate by performance and written examination, his ability to produce rubber stamps employing the fundamental processes involved.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
15.1	The learner will, orally, identify the basic parts of a rubber stamp hot press. 1) On - Off Switch 2) Chase 3) Compensating Tray 4) Adjustment Wheel 5) Heat Indicator 6) Timer	15.1	Orally identify for the instructor the basic parts of a rubber stamp hot press.
15.2	The learner will set the required type, accurately spaced, and lock it into the rubber stamp chase.	15.2	Using the fundamental processes of hand-setting type, set the necessary type for a finished product into a composing stick. Lock this type in the required chase.
15.3	The learner will demonstrate his ability to pre-heat the stamp press and make a satisfactory matrix mold for a rubber stamp.	15.3	With the materials issued by the instructor, (matrix and soapstone), pre-heat the press and stamp a matrix mold.
15.4	The learner will demonstrate his ability to form a rubber stamp imprint from a matrix mold.	15.4	With the materials issued, make a rubber imprint from the finished matrix mold.
15.5	The learner will demonstrate his ability to attach a finished rubber stamp to the correct size cushion molding.	15.5	With the materials issued, cut the cushion molding to correct size and properly attach the mold for a finished product.
15.6	With 75% proficiency, the learner will answer, in writing, an examination testing his understanding of rubber stamp making.	15.6	Complete the following sentences: 1) Rubber stamps are _____ into matrix molds. 2) Matrix becomes soft at _____ F. 3) The best type to use for stamp making is _____ type.

COURSE GRAPHIC COMMUNICATIONS IA
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 15.0 cont'd. RUBBER STAMP MAKING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
		15.6	4) The type form is locked in a _____ . 5) _____ furniture is to be used in stamp making. 6) The type form is pre-heated for _____ minutes at _____ F. 7) The matrix is placed with the _____ side against the type. 8) The mold should bake for_____ minutes at _____ F. 9) _____ is used as a parting compound. 10) To test proper vulcanizing, the _____ is pressed into the stamp face.

Terminal Performance Objective - 15.0

L.P. No.	M/M No.	Method / Media Selection
15.1	15.1.1	Instruction Sheet
		Textbook Assignment
15.2	15.2.1	Instruction Sheet
		Demonstration
15.3	15.3.1	Instruction Sheet
		Demonstration
15.4	15.4.1	Instruction Sheet
		Demonstration
15.5	15.5.1	Instruction Sheet
		Demonstration
15.6	15.6.1	Instruction Sheet
		Demonstration
		Textbook Assignment

GRAPHICS IB

ACCREDITATION NO. 5843

LENGTH OF COURSE: 1 SEMESTER

GRADE LEVEL: 9th

PROGRAM PATH: EXPLORATORY

PREREQUISITE: GRAPHIC COMMUNICATIONS IA

COURSE DESCRIPTION:

An accelerated program for students who are capable of doing more advanced work than the average student. The student may choose to spend this time in one area of the prerequisite course or all of the areas.

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 1.0 ORIENTATION

The learner will, with 80% accuracy, list the classroom responsibilities expected of him. The learner will also demonstrate, orally, his knowledge of the grading procedures used in this course of study.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
1.1	The learner will write and define the responsibilities (listed below) expected of him in the general graphics communications laboratory. 1. Punctuality 2. Citizenship 3. Safety 4. Behavior 5. Good Housekeeping	1.1	Write and define five (5) areas of responsibility expected of you as a learner.
1.2	The learner will orally recall the following areas to be graded in this course of study: 1. Projects 2. Tests 3. Written Work (other than tests) 4. Daily Performance	1.2	State the four (4) areas to be considered in arriving at a final grade.

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 2.0 — GENERAL SAFETY

The learner will, with 90% plus proficiency, write his understanding of the General Safety Rules of the graphics communications laboratory. He will demonstrate his ability to follow the rules of good housekeeping in the laboratory.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
2.1	The learner will list the General Safety Rules given by the instructor. 1. The instructor will approve all work to be accomplished. 2. Use common sense. Horseplay is forbidden. 3. Read safety signs. 4. Secure all long hair and loose clothing. 5. No tools or materials placed in the mouth. 6. Wipe up all spilled solutions. 7. All accidents shall be reported immediately to the instructor. 8. Place dirty and used rags in the appropriate containers. 9. Do not talk to the operator of a machine. 10. Report any unsafe situations or machines. 11. Wear safety glasses when appropriate. 12. Do not experiment or use tools and equipment without proper instruction. 13. Never use the large paper cutter without the instructor's permission. Check the lock mechanism after each cut. 14. Always use the proper tools and equipment. 15. Know the location and use of all fire extinguishers. 16. Know the fire drill rules and regulations.	2.1	Write the General Safety Rules given by the instructor.
2.2	The learner will, by daily actions, perform the rules of good housekeeping. 1. Keep the tools clean 2. Clean the equipment properly. 3. Store all tools in their proper area. 4. Clean the assigned area.	2.2	Clean your equipment and tools. Place the tools in their proper storage racks and sweep your assigned area.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 1.0

I. P. No.	M/M No.	Method / Media Selection
1.1	1.1.1	Lecture Instruction Sheet
1.2	1.2.1	Lecture Chalkboard Demonstration

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 2.0

I. P. No.	M/M No.	Method / Media Selection
2.1	2.1.1	Instruction Sheets
2.2	2.2.1	Observation by Instructor

COURSE GRAPHIC COMMUNICATIONS IB

TERMINAL PERFORMANCE OBJECTIVE NO. 3.0

OCCUPATIONS

With 75% proficiency, the learner will in writing, list the occupational opportunities available in the specific areas to be studied at this grade level.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
3.1	The learner will list eight (8) occupational or apprentice programs available in the field offered in this study period. 1. Compositor 2. Layout Man 3. Proofreader 4. Linotype - Intertype operator 5. Monotype - Operator 6. Pressmen 7. Stereotyper 8. Photoengraver	3.1	Through individual research, write eight (8) opportunities for employment available in the graphic arts areas you will be studying.
3.2	The learner will research a field of particular interest and write at least a two-hundred (200) word composition in that area relating to the program offered.	3.2	Using textbooks and the school media center, you will write a composition of at least two-hundred (200) words, listing the qualifications and advantages offered by serving in a chosen area.

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 4.0

PRINTING TOOLS AND EQUIPMENT

The learner, with 75% proficiency, will identify and explain in writing, the function of the common hand tools and will orally identify those pieces of equipment located in the graphic communications laboratory.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
4.1	The learner, given a list of hand tools and /or equipment unique to the printing trade, will identify and explain in writing the function of each. 1. Composing Stick 2. Galley 3. Brayer 4. Line Gauge 5. Quoins 6. Quoin Key 7. Gauge Pin 8. Planer 9. Proof Press 10. Chase 11. Furniture 12. Reglets	4.1	Identify, in writing, the function of each of the following hand tools and / or equipment: 1. Composing Stick 2. Galley 3. Brayer 4. Line Gauge 5. Quoin Key 6. Quoins 7. Gauge Pins 8. Planer 9. Proof Press 10. Chase 11. Furniture 12. Reglets
4.2	Given pictorial representations of the equipment in the graphic communications laboratory, the learner will orally identify and explain the purpose of each.	4.2	Orally identify and explain the function of each piece of equipment as illustrated on the instruction sheet given you by the instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 3.0

I. P. No.	M/M No.	Method / Media Selection
3.1	3.1.1	Lecture
		Media Center
		Text
3.2	3.2.1	Text
		Media Center

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 4.0

I. P. No.	M/M No.	Method / Media Selection
4.1	4.1.1	Instruction Sheets
4.2	4.2.1	Instruction Sheets

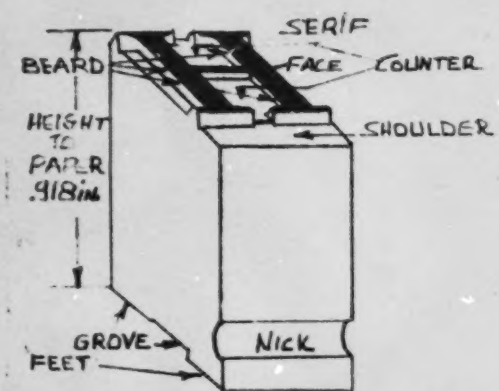
COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0

MOVEABLE TYPE

The learner will, with 75% proficiency on a written examination, demonstrate his knowledge of the parts of moveable type and how type is measured, purchased, and classified. The learner will also identify, in writing, various spacing materials and the placement of characters in the California Job Case.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.1	The learner, given a drawing illustrating the nomenclature of a piece of type, will identify those parts on a written examination.	5.1	Given a drawing illustrating the nomenclature of a type character, you will identify in writing, those parts.
5.2	The learner will demonstrate his knowledge of how type is measured on a written examination.	5.2	Complete the following statements by supplying the missing word or words: 1. All type is ___ of an inch high. 2. There are ___ picas to an inch. 3. There are ___ points to the inch. 4. There are ___ points to the pica. 5. There are ___ points to the nonpareil.



PARTS OF A PIECE OF TYPE

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 5.0 cont'd.

MOVEABLE TYPE

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.3	The learner will, by written examination, demonstrate his knowledge of how foundry type is purchased and classified.	5.3	Complete the following statements by supplying the missing word or words: 1. Foundry type is purchased in assortments or _____ . 2. The complete range of sizes of one style of type type is known as _____ . 3. A number of series of type, having the same general characteristics of design, and bearing the same name, are said to be of that _____ .
5.4	The learner will, on a written examination, identify the various spaces and quads.	5.4	In the blanks provided, indicate the names of the different spaces and quads.
5.5	The learner will demonstrate his knowledge of strip spacing materials by written examination.	5.5	Complete the following statements: 1. Strip materials that are less than six (6) points in thickness are called _____ . 2. Strip materials that are more than six (6) points in thickness are called _____ .

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0 cont'd.

MOVEABLE TYPE

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.6	Given a layout drawing of the California Job Case, the learner will, with 80% accuracy, indicate in writing, the placement of each character.	5.6	Write in the correct characters on the layout of the California Job Case given you by the instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 5.0

I. P. No.	M/M No.	Method / Media Selection
5.1	5.1.1	Instruction Sheets
5.2	5.2.1	Lecture
5.3	5.3.1	Lecture
5.4	5.4.1	Textbook
		Lecture
5.5	5.5.1	Textbook
		Lecture
5.6	5.6.1	Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0

SPACE COMPOSITION

The learner will correctly answer three (3) questions concerning the use or spaces and quads on a written examination. The learner will also, and with 50% accuracy, list four (4) rules related to the division of the last word of a line into syllables.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.1	The learner will demonstrate his knowledge of how spaces and quads are used by written examination.	6.1	Indicate, in the spaces provided, the correct sizes, and names of the spaces or quads required when setting small type. a. The _____ is used most often to space between words. b. An _____ is used most often to space between sentences. c. The _____ is used most often to begin paragraphs.
6.2	The learner will list the following four (4) rules concerning the division of the last word of a line into syllables. 1. The word must be divided correctly between syllables and a hyphen placed after the first section of the word. 2. A syllable of one letter is never separated from the rest of the word. 3. Syllables of two or three letters are not commonly separated in wide measure composition. 4. Hyphens are not placed at the ends of a number of consecutive lines.	6.2	List four (4) rules pertaining to the division of the last word in a line of a paragraph. 1. 2. 3. 4.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 6.0

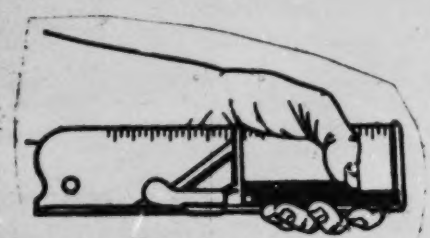
I. P. No.	M/M No.	Method / Media Selection
6.1	6.1.1	Lecture
		Demonstration
		Handout Sheet
6.2	6.2.1	Textbook
		Lecture
		Chalkboard

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 7.0

HAND SETTING TYPE

The learner will demonstrate (orally) the correct use of the composing stick and (by practical exercise) his ability to set type with accuracy of 90%.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.1	**The learner will, by verbal demonstration to the instructor, prove his ability to correctly use the composing stick.**  How to Hold Composing Stick	7.1	Demonstrate to the instructor, verbally, the correct methods for using the composing stick.
7.2	**The learner will demonstrate his ability to set type by performing a practical exercise as assigned by the instructor.**	7.2	You will, given a type setting exercise by the instructor, prove your ability to set a job by correctly using the composing stick, type, and spacing materials used for justification.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 7.0

I. P. No.	M/M No.	Method / Media Selection
7.1	7.1.1	Textbook
		Demonstration
		Tools and Equipment
7.2	7.2.1	Instruction Sheets
		Tools and Materials ..

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0

PROOFING AND LOCK-UP

The learner will, by written examination and / or practical exercise, demonstrate how to handle and tie,proof, clean, correct and lock forms. A proficiency of 80% is expected of the student.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.1	The learner, having completed a practical type-setting exercise, will demonstrate to the instructor the correct methods used to tie-up a locked form.	8.1	Demonstrate to the instructor the correct methods that should be used to tie-up a previously assigned composition assignment.
8.2	The learner will, by written examination, name the two (2) following methods for proofing a composition: 1. The planer method. 2. The proof-press method.	8.2	Name, in writing, the two most accepted methods for proofing a composition. _____ _____
8.3	The learner will, by practical exercise and written examination, demonstrate his knowledge of how to clean and correct composition with 90% proficiency.	8.3	1. Having set and tied a composition, you are to submit a revised or final proof to the instructor with the type which has been cleaned. 2. Place a "T" in the blank before each statement if the statement is true, or an "F" if the statement is false. __ 1. Dirty type causes unnecessary work for the composer. __ 2. Type cleaner should be poured directly onto the set type. __ 3. A cloth, rather than a brush, should be used first to remove ink from the surface of the characters. __ 4. It is a good idea to never use sharp pointed tweezers to make corrections. __ 5. A proof having errors is often referred to as a "dirty proof".

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 8.0 cont'd. PROOFING AND LOCK-UP

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.4	The learner will, by written examination, be capable of identifying the following tools that are displayed by the instructor. 1. Chase 2. Imposing Stone 3. Furniture 4. Reglets 5. Quoins 6. Quoin Key 7. Planner Block 8. Galley	8.4	Identify, in writing, the following tools and equipment used to impose and lock forms as displayed by the instructor. 1. Chase 2. Imposing Stone 3. Furniture 4. Reglets 5. Quoins 6. Quoin Key 7. Planner Block 8. Galley
8.5	The learner will, with 80% proficiency, write and perform the following procedures for locking-up a form: 1. Place the form in the chase. 2. Surround the form with furniture. 3. Fill in with furniture. 4. Insert the quoins. 5. Remove string and fit the quoins. 6. Plane the form. 7. Lock the form. 8. Test for lift.	8.5	1. Having set, tied, proofed, and cleaned a form, you are to lock this form and present it to the instructor for approval. 2. List the correct procedure steps for locking-up a form.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 8.0

L. P. No.	M/M No.	Method / Media Selection
8.1	8.1.1	Textbook
		Demonstration
		Tools and Equipment
8.2	8.2.1	Textbook
8.3	8.3.1	Instruction Sheets
8.4	8.4.1	Textbook
		Instruction Sheets
8.5	8.5.1	Textbook
		Instruction Sheet
		Demonstration

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 9.0

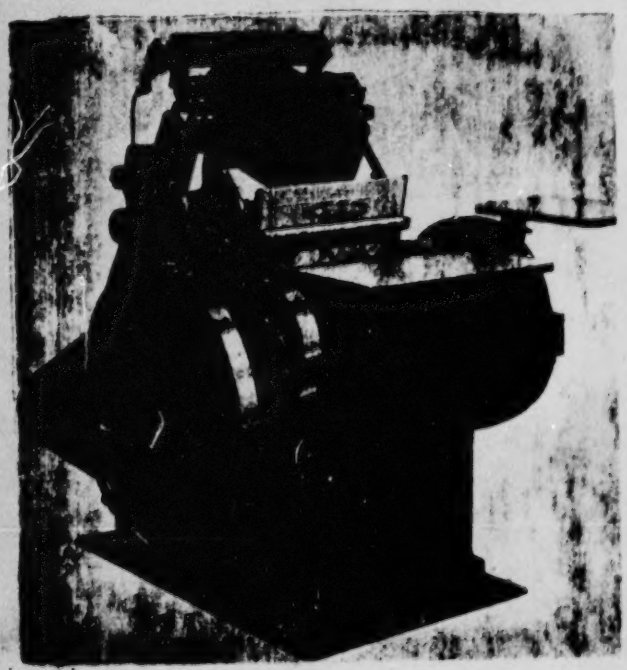
LETTERPRESS
(ELECTRICAL POWER DRIVEN)

The learner will, with 80% proficiency, define the three (3) methods of graphic reproduction, the three (3) types of letterpress printing presses, and will identify and describe the function of the main parts of the platen press.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
9.1	The learner, given the three (3) methods of graphic reproduction, will define each. 1. Letterpress- printing from type or other raised surface. 2. Offset Lithography - printing based on the principle that oil and water will not mix. 3. Intaglio - printing from plates in which the design or lettering is etched below the surface of the plate.	9.1	Write a definition of each of the three (3) methods of graphic reproduction given below: 1. Letterpress 2. Offset Lithography 3. Intaglio
9.2	Given the three (3) types of letter presses, the learner will define each. 1. Platen - a printing press in which the impression is made when a flat surface called a platen pushes the paper against the type. 2. Cylinder - a press upon which the impression is taken between a cylinder and a flat type form. 3. Rotary - a printing press that uses curved printing plates and curved impression cylinder.	9.2	Define each of the following three (3) types of letter presses: 1. Platen 2. Cylinder 3. Rotary

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 9.0 cont'd. LETTERPRESS

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
9.3	**The learner will, verbally, identify and describe the function of the given parts of the platen press.**  1. Platen 2. Chase 3. Ink Disc 4. Throw off lever 5. Brake 6. Feed Board 7. Grippers 8. Fly Wheel	9.3	Verbally, identify and describe the functions of the given parts of the platen press. 1. Platen 2. Chase 3. Ink Disc 4. Throw off lever 5. Brake 6. Feed Board 7. Grippers 8. Fly Wheel

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 9.0

I. P. No.	M/M No.	Method / Media Selection
9.1	9.1.1	Textbook
		Lecture
		Chalkboard
9.2	9.2.1	Textbook
		Lecture
		Chalkboard
9.3	9.3.1	Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 10.0

OPERATION OF THE POWER DRIVEN PLATEN PRESS

The learner will, orally or by practical exercise, demonstrate his proficiency in designing, setting-up, making impressions, cleaning the press, and distributing type in its' proper storage place. A proficiency of 75% is expected of the learner.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
10.1	**The learner, having obtained type setting and make-ready skills in T. P. O.'s six (6) and seven (7), will set an instructor approved practical exercise to be printed using the power-driven platen press.**	10.1	Select and set an instructor approved job to be printed using the power-driven platen press.
10.2	**The learner will demonstrate by practical exercise and to the instructor, the correct procedures for locking the type form on the bed and adjusting the grippers on the power-driven platen press.**	10.2	Having locked-up a type form, you will install this form in the power-driven platen press and adjust the grippers.
10.3	**The learner will demonstrate, by practical exercise, the correct procedures for completing a make ready on the power-driven platen press.**	10.3	Complete a make ready for the job you have locked-up.
10.4	**In the presence of the instructor, the learner will make several (number to be determined by the learner and/or the instructor) clear impressions of the form.**	10.4	In the presence of the instructor, you will make several (number to be determined by job requirements) clear impressions.
10.5	**After having printed several impressions of the locked-up type form, the learner will clean the press, type the form and distribute the type in the proper storage place.**	10.5	Having made several impressions of your locked-up type form, you will clean the press, type the form and distribute the type in its' proper storage place.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 10.0

I. P. No.	M/M No.	Method / Media Selection
10.1	10.1	Textbook Media Center
10.2	10.2.1	Textbook Demonstration Tools and Equipment
10.3	10.3.1	Textbook Demonstration Tools and Materials
10.4	10.4.1	Demonstration Tools and Equipment
10.5	10.5.1	Textbook Tools and Materials Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 11.0 PHOTOGRAPHY

The learner will, with 75% proficiency, write a brief research paper on a special photoprinting process, and produce the required negatives and /or positives to print this process.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
11.1	The learner will select, or choose one of the techniques listed below, a subject for a brief research paper concerning a special photoprinting process: Special Photoprinting Processes 1. Photogram 2. Cropping 3. Two pictures on one 4. Bas-relief 5. Easel distortion 6. Print that is both nagative and positive	11.1	You will, with the aid of the instructor, select a topic for a brief research paper concerning a special photoprinting process.
11.2	The learner, after having selected a special photoprinting process, will produce the necessary negatives and /or positives required to print this process.	11.2	Having selected a special photoprinting process, you will produce the necessary negatives and / or positives required to print this process.
11.3	The learner will, using available or special darkroom equipment, chemicals, or processes, make prints of the selected photoprinting process.	11.3	Use available or special darkroom equipment, chemicals, or processes to make prints of the special photoprinting process that you selected.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 11.0

I. P. No.	M/M No.	Method / Media Selection
11.1	11.1.1	Media Center Lecture Chalkboard
11.2	11.2.1	Instruction Sheets
11.3	11.3.1	Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 12.0

PRINCIPLES OF LITHOGRAPHY

The learner, given instruction sheets illustrating the different parts of the offset press and operating procedures of same, will recall the parts of an offset press and various offset procedures by examination with a proficiency of 75%.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
12.1	**The learner will, in writing, identify the different parts of the offset press as pictured on an instruction sheet given by the instructor.**	12.1	Given a diagram showing the different parts of the offset press, you will identify these parts in writing.
12.2	**The learner will, by examination, demonstrate his ability to understand different principles of lithography**	12.2	You will demonstrate your knowledge of how the offset press functions and of different lithography principles by completing the following examination. Circle the "T" before each statement that is true. If the statement is false, circle the "F". T F 1. The handwheel of the offset press can be turned in either direction. T F 2. The gum should be removed from a metal plate before it is installed on the press. T F 3. The flow of ink is reduced when the ink fountain adjusting screws are turned counter-clockwise. T F 4. A paper plate should be pre-dampened before being installed on the press. Multiple Choice 5. In offset lithography, (a) The image is printed directly from plate to paper, (b) The image is transferred to the rubber stamp, then to the paper,

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 12.0 cont'd.

PRINCIPLES OF LITHOGRAPHY

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
		12.2	(c) The image is transferred from the blanket to the plate, and from the plate to the paper. 6. The lithography plate should be moistened (a) Before ink is applied, (b) After ink has been applied, (c) Before ink has been applied and continuously while ink is being applied. 7. The lithographic principles was discovered in 1798 by (a) Alois Senefelder, (b) Benjamin Franklin, (c) Johann Guttenberg. 8. While adjusting the ink fountain, (a) The ductor roller should contact the distribution rollers, (b) The distribution rollers should contact the fountain rollers, (c) The ductor roller should contact the fountain roller.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 12.0

I. P. No.	M/M No.	Method / Media Selection
12.1	12.1.1	Textbook
		Reference Books
		Instruction Sheets
12.2	12.2.1	Lecture
		Demonstration
		Chalkboard

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 13.0

OFFSET PLATE MAKING

The learner will, with 80% proficiency, design a multicolor offset printing job, which requires the use of a tint screen, and produce both a presensitized aluminum plate and a direct image master to print the job on the offset press.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
13.1	The learner will design a multicolor offset printing job which will require the use of one (1) presensitized aluminum plate, one (1) paper master, and the use of a tint screen.	13.1	Design a two color offset printing job which will necessitate the use of one (1) presensitized aluminum plare, one (1) paper master, and the tint screen. Submit this design for instructor approval.
13.2	The learner, using the procedure for masking up a job to be exposed to a presensitized aluminum plate, (ref. 12.1), will mask up a single color image using the tint screen.	13.2	Mask up a single color image area to be exposed to a presensitized aluminum plate.
13.3	Using the correct exposure (ref. 12.2) and developing (ref. 12.3) procedures, the learner will produce an aluminum plate ready for use on the offset press.	13.3	Correctly expose (ref. 12.2) and develop (ref. 12.3) the aluminum plate made previously (ref. 13.2).
13.4	The learner will prepare a direct image master to print the remainder of the job designed previously (ref. 13.1).	13.4	Prepare a direct image master to print the remainder of the job previously designed (ref. 13.1).

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 13.0

I. P. No.	M/M No.	Method / Media Selection
13.1	13.1.1	Reference Books
		Media Center
		Textbooks
		Instruction Sheets
13.2	13.2.1	Demonstration
		Textbook
		Instruction Sheets
		Tools and Materials
13.3	13.3.1	Demonstration
		Textbooks
		Instruction Sheets
		Tools and Materials
13.4	13.4.1	Textbooks
		Instruction Sheets

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 14.0 — OFFSET PRESS OPERATION

The learner will, with 80% proficiency, orally define the three (3) basic operating systems of the offset press and set up, test, and run copies from a presensitized aluminum plate and paper master. The learner will also demonstrate, both orally and by practical exercise, how to clean and secure the offset press for the next operator.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
14.1	The learner will orally define the function of the following basic three (3) systems of the offset press to the instructor. 1. Paper Delivery System 2. Inking System 3. Moistening System	14.1	Orally describe to the instructor the function of each of the following basic systems of an offset press: 1. Paper Delivery System 2. Inking System 3. Moistening System
14.2	In the presence of the instructor, the learner will set up, test, and run copies of the two (2) masters (one (1) presensitized aluminum, and one (1) direct image master) made earlier for a multicolor printing job.	14.2	In the presence of the instructor, you will set up, test, and run copies of the two (2) masters you made for a multicolor print job.
14.3	The learner will demonstrate, both orally and by practical exercise, how to clean and secure the offset press. Note: In most cases, the instructor will reserve the right to clean the inking fountain and moistening system.	14.3	In the presence of the instructor, you will remove all ink from the inking system (excluding the ink fountain) and secure the press for the next operator.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 14.0

I. P. No.	M/M No.	Method / Media Selection
14.1	14.1.1	Lecture
		Textbooks
14.2	14.2.1	Reference Books
		Textbook
		Demonstration
		Tools and Equipment
14.3	14.3.1	Reference Books
		Tools and Materials
		Textbook
		Demonstration

COURSE GRAPHIC COMMUNICATIONS IB
9th Grade

TERMINAL PERFORMANCE
OBJECTIVE NO. 15.0 SILK SCREENING

The learner will, with 75% proficiency, design and print a multicolor silk screen job as directed by the instructor.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
15.1	The learner will design, or select a design for a multicolor silkscreen job. This design will include the exact placement of register marks and colors.	15.1	Design a multicolor silkscreen job indicating the placement of register marks and different colors.
15.2	The learner will, using either laqcuer or water soluble film, cut a separate film for each color of the design to be printed. (Register marks must be included).	15.2	Cut a separate film, using either lacquer or water soluble film, for each color of the design to be printed. Register marks must be included.
15.3	The learner will adhere, using either water or adhering liquid, the cut pieces of film to silk screens and set up register guides.	15.3	Using either water (for water soluble film) or adhering liquid (for lacquer film), secure the cut pieces of film to silk screens and set up register guides.
15.4	The learner will print each of the colors represented in his "key design" using the following guidelines: 1. If possible, print background or most descriptive part os design first. 2. If colors overload, print the lighter colors first.	15.4	Print each of the colors represented in your "key design" following these guidelines: 1. If possible, print background or most descriptive part of design first. 2. If colors overload, print the lighter colors first.

Terminal Performance Objective - 15.0

I. P. No.	M/M No.	Method / Media Selection
15.1	15.1.1	Media Center
		Reference Books and Materials
15.2	15.2.1	Instruction Sheets
		Demonstration
		Tools and Materials
15.3	15.3.1	Instruction Sheets
		Demonstration
		Tools and Materials
15.4	15.4.1	Textbook
		Demonstration
		Tools and Materials

DRAFTING IA

ACCREDITATION NO. 5813A

LENGTH OF COURSE: 1 SEMESTER

GRADE LEVEL: 9th

PROGRAM PATH: CAREER EDUCATION, EXPLORATORY, PRE-COLLEGE

PREREQUISITE(S): DRAFTING 7 OR 8

COURSE DESCRIPTION:

Introduction of mechanical drafting as a language of industry. Study in the areas of sketching, orthographic projection, simple geometric construction, and blueprint reading.

DRAFTING IA
9th GRADE

1.0 Orientation

2.0 Occupations

3.0 Tools and Equipment

4.0 Sketching-Freehand

5.0 Lettering

6.0 Dimensioning

7.0 Orthographic Projection

COURSE DRAFTING IA

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 1.0

ORIENTATION

The learner will demonstrate through performance and written examination, his ability to abide by the rules of good drafting practices and will identify the criteria measures used. He will do this with 90% proficiency.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
1.1	The learner will identify, in writing, the drafting equipment and table assigned to him. 1. T Square 2. 30 - 60 Triangle 3. 45 Triangle 4. Scale 5. Drafting Board 6. Pencils	1.1	On the handout sheet, list the table number and equipment numbers issued to you. Sign the sheet.
1.2	The learner will demonstrate daily his ability and willingness to observe and follow the rules of good drafting room procedures. 1. Don't run in the laboratory 2. Protect your equipment 3. Work quietly 4. Observe fire evacuation rules	1.2	You will be observed and graded on your ability and willingness to follow the rules as stated by your instructor.
1.3	The learner will properly clean and store his equipment after using.	1.3	Clean and store all equipment after using.
1.4	In writing, the learner will identify the criteria measures used in the laboratory. 1. Assigned problems 2. Tests 3. Written work (other than tests) 4. Daily performance	1.4	List, in writing, four (4) areas to be considered in arriving at a final grade.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 1.0

I. P. No.	M/M No.	Method / Media Selection
1.1	1.1.1	Lecture
		Demonstration
		Handout Sheet
		Film
1.2	1.2.1	Lecture
		Observation
1.3	1.3.1	Demonstration
		Materials
		Observation
1.4	1.4.1	Lecture
		Demonstration
		Handout Sheet

COURSE DRAFTING IA

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 2.0

OCCUPATIONS

The learner will, with 75% proficiency, write a brief description of drafting as a profession, listing at least five (5) areas of specialization, and describe briefly the general training available.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
2.1	The learner will write a brief description of drafting as a profession.	2.1	Using your text or media center material, write a brief description of drafting as a profession.
2.2	The learner will list five (5) areas of specialization within the drafting profession. 1. Technical drafting 2. Design 3. Engineering 4. Teaching 5. Architecture	2.2	In writing, list five (5) areas of specialization in drafting, using your text or media center material as a guide.
2.3	The learner will list, in writing, three (3) of the possible sources of training available. 1. Armed services 2. Technical school 3. College 4. Apprenticeship	2.3	In writing, list three (3) sources of training available for draftsmen, using your text and media center material as a guide.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 2.0

I. P. No	M/M No	Method / Media Selection
2.1	2.1.1	Lecture
		Media Center
		Text
		Handout Sheet
2.2	2.2.1	Lecture
		Media Center
		Text
		Handout Sheet
2.3	2.3.1	Lecture
		Media Center
		Text
		Handout Sheet

COURSE DRAFTING IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 3.0

TOOLS AND EQUIPMENT

The learner will demonstrate through performance and examination, his ability to identify the basic tools of drafting with a proficiency of 80%.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
3.1	Shown pictures or examples of basic drawing tools, the learner will identify them on paper. 1. T Square 2. Drawing Board 3. Architect's Scale 4. Eraser 5. Erasing Shield 6. 30 - 60 Triangle 7. 45 Triangle 8. Drop Bow Compass 9. Center Bow Compass 10. Beam Compass 11. Dividers 12. Irregular Curve (French) 13. Drawing Pencil 14. Drafting Duster 15. Pencil Pointer	3.1	Identify, in writing, the equipment and tools shown you.
3.2	The learner will identify the different grades of drawing pencils and tell the best use for each. (1) HB, F, H - lettering and sketching (2) 2H - finished drawing (3) 4H, 5H, 6H - construction	3.2	Define the best use of the following grade pencils: (1) HB, F, H (2) 2H (3) 4H, 5H, 6H
3.3	The learner, using American standard trimmed sizes of drawing sheets, will identify the first three (3) standard sizes of sheets. 1. 8½ x 11 2. 11 x 17 3. 17 x 22	3.3	List the first three (3) sizes of trimmed drawing sheets.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 3.0

I. P. No.	M/M No.	Method / Media Selection
3.1	3.1.1	Lecture
		Demonstration
		Text
		Tools and Equipment
		Handout Sheet
3.2	3.2.1	Lecture
		Demonstration
		Text
		Samples
3.3	3.3.1	Lecture
		Demonstration
		Samples

COURSE DRAFTING IA

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 4.0

SKETCHING

By performance, the learner will demonstrate his ability to use principles of freehand sketching with 80% proficiency.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
4.1	Demonstrate on paper various principles of freehand sketching given by the instructor.	4.1	On paper, demonstrate the following sketching techniques: 1. Horizontal lines 2. Vertical lines 3. Inclined lines 4. Arcs and Circles 5. Proportions 6. Alignment
4.2	The learner will sketch problems in straight lines, circles, arcs, and irregular curves.	4.2	Using the text issued, sketch the problems assigned to you by the instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 4.0

I. P. No.	M/M No.	Method / Media Selection
4.1	4.1.1	Chalkboard Demonstration
		Graph Paper
		Equipment
		Text
4.2	4.2.1	Chalkboard Demonstration
		Handout Sheet
		Equipment

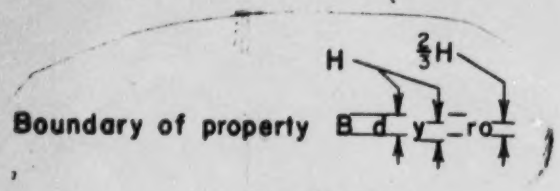
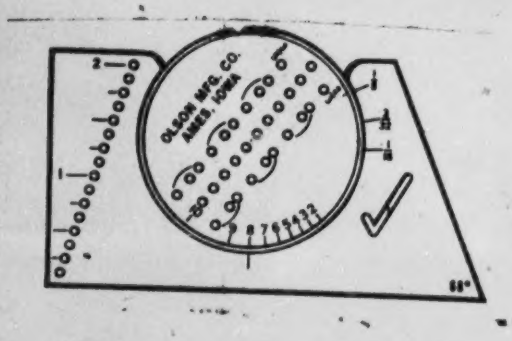
COURSE DRAFTING IA

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0

LETTERING

The learner, with 80% proficiency, will demonstrate through performance on paper, his knowledge of proper lettering techniques.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.1	Using proper rules of composition, the learner will demonstrate his lettering ability on paper.  *Size of letters.* 1. Judge by eye 2. Equal to letter "O", and "OO". 3. Equal to height of capital letters	5.1	On paper demonstrate the following rules of composition: 1. Proper spacing between letters 2. Proper spacing between words and sentences. 3. Proper spacing between lines
5.2	The learner will demonstrate his proficiency in using a lettering guide. 	5.2	Layout different line widths, assigned by the instructor, using a lettering guide.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 5.0

I. P. No.	M/M No.	Method / Media Selection
5.1	5.1.1	Chalkboard Demonstration
		Handout Sheet
		Equipment
5.2	5.2.1	Demonstration
		Equipment
		Handout Sheet

COURSE DRAFTING IA

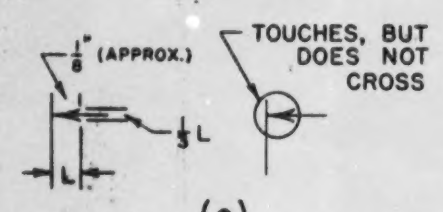
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0

DIMENSIONING

The learner will demonstrate, by performance and with 80% proficiency, his ability to accurately dimension a drawing, giving sizes, notes, and necessary shop information.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.1	The learner will draw the four (4) basic dimensioning lines as given in The Draftsman's Alphabet of Lines. 1. Extension lines 2. Dimension lines 3. Center lines 4. Leaders	6.1	On the assignment sheet issued by the instructor, draw the four (4) basic dimension lines.
6.2	The learner will neatly and accurately draw Arrowhead representation.	6.2	Draw a conventional Arrowhead representation.



(c)

Arrowheads.

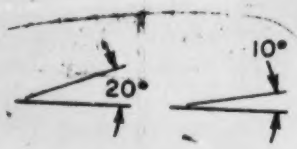
COURSE DRAFTING IA
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0 cont'd.

DIMENSIONING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.3	The learner will demonstrate his ability to neatly draw dimensioning numbers.	6.3	On the assignment sheet issued by your instructor accurately and neatly letter the fractions and whole numbers.
6.4	The learner will, in writing, demonstrate his ability to properly locate dimensioning figures on a drawing.	6.4	Place the necessary dimensioning figures on the assigned problem following the standard rule that "all dimensions should read from the bottom up, whenever possible".
6.5	The learner will demonstrate his ability to properly dimension angles.	6.5	Dimension the angles assigned by your instructor, using your textbook as a guide.

Numerals and fractions.



COURSE DRAFTING IA

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0 cont'd. DIMENSIONING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.6	The learner will demonstrate his ability to properly place the necessary dimensions and notes to a finished drawing. He will follow these basic rules: 1. Smaller dimensions should be placed nearest the object. 2. Overall dimensions are always farthest from the object. 3. Avoid placing dimensions where dimension lines will cross extension lines. 4. Never place a dimension to coincide with a line of the drawing. 5. Avoid placing a dimension on a view unless some advantage is gained.	6.6	Using the basic dimension rules, dimension the problem issued by your instructor.
6.7	The learner will demonstrate his ability to finish a drawing by placing the dimensions properly using the four (4) steps of finish dimensioning. 1. Draw extension lines dark and sharp 2. Use the scale to space dimensions 1/4 from the object and at least 1/4 apart. 3. Draw all arrowheads about 1/8 long and very narrow. 4. Add all dimension figures and lettering	6.7	Finish the assigned drawing, following the four (4) step method given by your instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 6.0

I. P. No.	M/M No.	Method / Media Selection
6.1	6.1.1	Chalkboard Demonstration
		Text
		Tools and Equipment
		Film
		Handout Sheet
6.2	6.2.1	Demonstration
		Tools and Equipment
		Film
		Handout Sheet
6.3	6.3.1	Demonstration
		Tools and Equipment
		Film
		Handout Sheet
6.4	6.4.1	Chalkboard Demonstration
		Tools and Equipment
		Film
		Text
		Handout Sheet
6.5	6.5.1	Demonstration
		Tools and Equipment

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 6.0 cont'd.

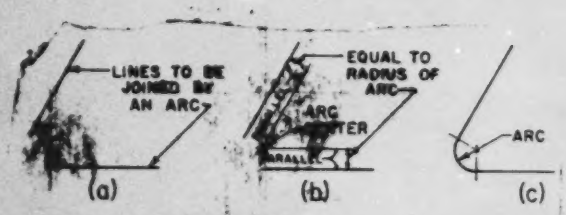
I. P. No.	M/M No.	Method / Media Selection
6.5	6.5.1	Text
		Film
		Handout Sheet
6.6.	6.6.1	Demonstration
		Tools and Equipment
		Text
		Film
		Handout Sheet
6.7	6.7.1	Demonstration
		Tools and Equipment
		Text
		Film
		Handout Sheet

COURSE DRAFTING IA

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 7.0 — GEOMETRIC CONSTRUCTION

The learner will, with 80% proficiency, demonstrate his ability to draw the basic geometric construction techniques involved in drafting. These will include construction of circles, and arcs.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.1	**The learner will draw a circle using a scale and compass.**	7.1	Draw a circle with a 1 radius. 1. Measure the radius with the scale and set the compass. 2. Lightly draw the circle on scrap paper and check your measurement. Adjust the compass accordingly. 3. Test again. 4. Hold the compass in one hand and start at the " 9 o'clock position". 5. Lean the compass slightly forward and draw the circle in a clockwise direction by rotating the handle between the thumb and fore finger.
7.2	**Demonstrate your ability to accurately draw an arc, joining two (2) lines.**  Joining two lines with an arc.	7.2	Given two (2) lines at an (any) angle, join these two (2) with an arc. 1. Locate the arc center by constructing a line parallel to the lines to be drawn at a distance equal to the radius of the arc. 2. Set the compass with the arc radius and join the two (2) lines with an arc.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 7.0

I. P. No.	M/M No.	Method / Media Selection
7.1	7.1.1	Demonstration
		Tools
		Equipment
		Text
		Instruction Sheet
		Handout Sheet
7. 2	7.2.1	Chalkboard Demonstration
		Tools
		Equipment
		Text
		Handout Sheet

COURSE DRAFTING IA

TERMINAL PERFORMANCE OBJECTIVE NO. 8.0 — ORTHOGRAPHIC PROJECTION

With a proficiency of 80% the learner will demonstrate through performance on paper, his ability to describe the various views of a working or multiview drawing.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
8.1	Demonstrate on paper, various principles of orthographic projection given by the instructor.	8.1	On paper, demonstrate the following orthographic projection techniques: 1. Selection of views 2. Spacing of views 3. Hidden lines and surfaces.
8.2	Given various assignments by the instructor, the learner will demonstrate his ability to choose the correct views.	8.2	On paper, draw the problems assigned by the instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objective - 8.0

I. P. No.	M/M No.	Method / Media Selection
8.1	8.1.1	Chalkboard Demonstration
		Tools
		Equipment
		Text
		Handout Sheet
8.2	8.2.1	Lecture
		Tools
		Equipment
		Handout Sheet

DRAFTING IB

ACCREDITATION NO. 5813B

LENGTH OF COURSE: 1 SEMESTER

GRADE LEVEL: 9th

PROGRAM PATH: CAREER EDUCATION, EXPLORATORY, PRE-COLLEGE

PREREQUISITE(S): DRAFTING IA

COURSE DESCRIPTION:

Sequential study of the areas covered in Drafting IA for the above average student.

DRAFTING IB

1.0 Orientation

2.0 Occupations

3.0 Tools and Equipment

4.0 Lettering

5.0 Geometrics

6.0 Sectional Views

7.0 Pictorial Drawing

COURSE DRAFTING IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 1.0

ORIENTATION

The learner will demonstrate through performance and written examination, his ability to abide by the rules of good drafting practices and will identify the criteria measures used. He will do this with 90% proficiency.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
1.1	The learner will identify, in writing, the drafting equipment and table assigned to him. 1. T Square 2. 30 - 60 Triangle 3. 45 Triangle 4. Scale 5. Drafting Board 6. Pencils	1.1	On the handout sheet, list the table number and equipment numbers issued to you. Sign the sheet.
1.2	The learner will demonstrate daily his ability and willingness to observe and follow the rules of good drafting room procedures. 1. Don't run in the laboratory 2. Protect your equipment 3. Work quietly 4. Observe fire evacuation rules	1.2	You will be observed and graded on your ability and willingness to follow the rules as stated by your instructor.
1.3	The learner will properly clean and stire his equipment after using.	1.3	Clean and store all equipment after using.
1.4	In writing, the learner will identify the criteria measures used in the laboratory. 1. Assigned problems 2. Tests 3. Written work (other than tests) 4. Daily performance	1.4	List, in writing, four (4) areas to be considered in arriving at a final grade.

METHOD / MEDIA ANALYSIS

Terminal Performance Objectives - 1.0

I. P. No.	M/M No.	Method / Media Selection
1.1	1.1.1	Lecture
		Demonstration
		Handout Sheet
		Film
1.2	1.2.1	Lecture
		Observation
1.3	1.3.1	Demonstration
		Materials
		Observation
1.4	1.4.1	Lecture
		Demonstration
		Handout Sheet

COURSE DRAFTING IB

TERMINAL PERFORMANCE OBJECTIVE NO. 2.0

OCCUPATIONS

The learner will, with 75% proficiency, write a brief description of drafting as a profession, listing at least five (5) areas of specialization, and describe briefly the general training available.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
2.1	The learner will write a brief description of drafting as a profession.	2.1	Using your text or media center material, write a brief description of drafting as a profession.
2.2	The learner will list five (5) areas of specialization within the drafting profession. 1. Technical drafting 2. Design 3. Engineering 4. Teaching 5. Architecture	2.2	In writing, list five (5) areas of specialization in drafting, using your text or media center material as a guide.
2.3	The learner will list, in writing, three (3) of the possible sources of training available. 1. Armed services 2. Technical school 3. College 4. Apprenticeship	2.3	In writing, list three (3) sources of training available for draftsmen, using your text and media center material as a guide.

METHOD / MEDIA ANALYSIS

Terminal Performance Objectives - 2.0

I. P. No.	M/M No.	Method / Media Selection
2.1	2.1.1	Lecture
		Media Center
		Text
		Handout Sheet
2.2	2.2.1	Lecture
		Media Center
		Text
		Handout Sheet
2.3	2.3.1	Lecture
		Media Center
		Text
		Handout Sheet

COURSE DRAFTING IB

TERMINAL PERFORMANCE OBJECTIVE NO. 3.0

TOOLS AND EQUIPMENT

The learner will demonstrate through performance and examination, his ability to identify the basic tools of drafting with a proficiency of 80%.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
3.1	Shown pictures or examples of basic drawing tools, the learner will identify them on paper 1. T Square 2. Drawing Board 3. Architect's Scale 4. Eraser 5. Erasing Shield 6. 30 - 60 Triangle 7. 45 Triangle 8. Drop Bow Compass 9. Center Bow Compass 10. Beam Compass 11. Dividers 12. Irregular Curve (French) 13. Drawing Pencil 14. Drafting Duster 15. Pencil Pointer	3.1	Identify, in writing, the equipment and tools shown you.
3.2	The learner will identify the different grades of drawing pencils and tell the best use for each. (1) HB, F, H - lettering and sketching (2) 2H - finished drawing (3) 4H, 5H, 6H - construction	3.2	Define the best use of the following grade pencils: (1) HB, F, H (2) 2H (3) 4H, 5H, 6H
3.3	The learner, using American standard trimmed sizes of drawing sheets, will identify the first three (3) standard sizes of sheets. 1. 8½ x 11 2. 11 x 17 3. 17 x 22	3.3	List the first three (3) sizes of trimmed drawing sheets.

METHOD / MEDIA ANALYSIS

Terminal Performance Objectives - 3.0

I. P. No.	M/M No.	Method / Media Selection
3.1	3.1.1	Lecture
		Demonstration
		Text
		Tools and Equipment
		Handout Sheet
3.2	3.2.1	Lecture
		Demonstration
		Text
		Samples
3.3	3.3.1	Lecture
		Demonstration
		Samples

COURSE DRAFTING IB

TERMINAL PERFORMANCE OBJECTIVE NO. 4.0 SKETCHING

By performance, the learner will demonstrate his ability to use principles of freehand sketching with 80% proficiency.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
4.1	Demonstrate on paper various principles of freehand sketching given by the instructor.	4.1	On paper, demonstrate the following sketching techniques: 1. Horizontal lines 2. Vertical lines 3. Inclines lines 4. Arcs and Circles 5. Proportions 6. Alignment
4.2	The learner will sketch problems in straight lines,, circles, arcs, and irregular curves.	4.2	Using the text issued, sketch the problems assigned to you by the instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objectives - 4.0

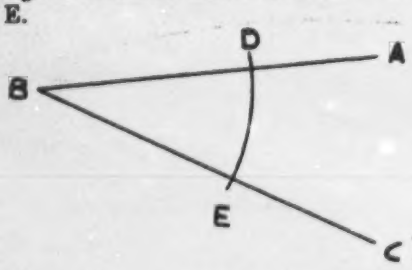
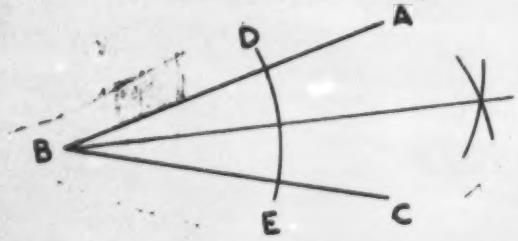
I. P. No.	M/M No.	Method / Media Selection
4.1	4.1.1	Chalkboard Demonstration
		Graph Paper
		Equipment
		Text
4.2	4.2.1	Chalkboard Demonstration
		Handout Sheet
		Equipment

COURSE DRAFTING IB

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0

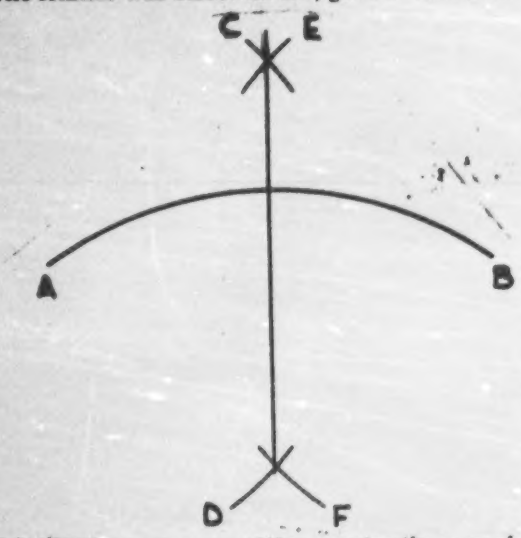
GEOMETRICS

The learner will expand his knowledge of the Geometrics involved in Drafting, by demonstrating his ability to mechanically bisect an angle, an arc, divide a line into equal parts, reproduce squares and draw parallel lines. He will attain 90% accuracy.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.1	Given an angle, the learner will bisect it. Given: Angle ABC with B as a center. 1.) With B as a center, draw an arc of any radius, intersecting AB and BC. Label the intersections as D and E.  2.) Using a compass setting greater than one half AB and with D and E as centers, draw intersecting arcs. A line drawn through these intersecting arcs and point B will bisect the angle. 	5.1	Given an angle with B as a center, bisect this angle.

COURSE DRAFTING IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0 cont'd. GEOMETRICS

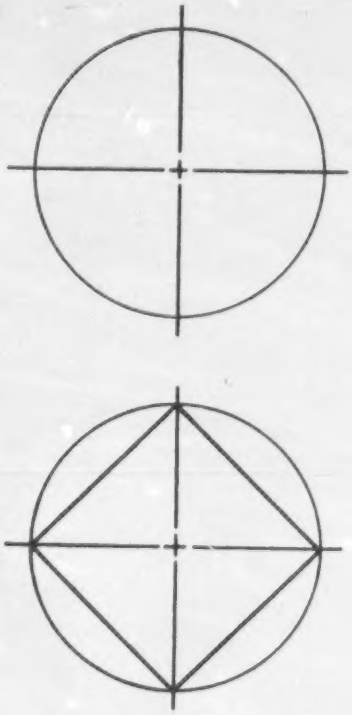
NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.2	The learner will bisect an arc, given : Arc AB.  1.) With a compass setting greater than one half the length of AB, from point A scribe and arc above and below arc AB. Repeat at B. A line drawn between these intersecting arcs will bisect the given arc. (Note: lines are bisected in the same manner.)	5.2	Given any arc AB, bisect it.

COURSE DRAFTING IB

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0 cont'd.

GEOMETRICS

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.3	The learner will mechanically draw a square with the diagonal given. 	5.3	Draw the top view of a square bolt head (across corners) using the diagonal method.

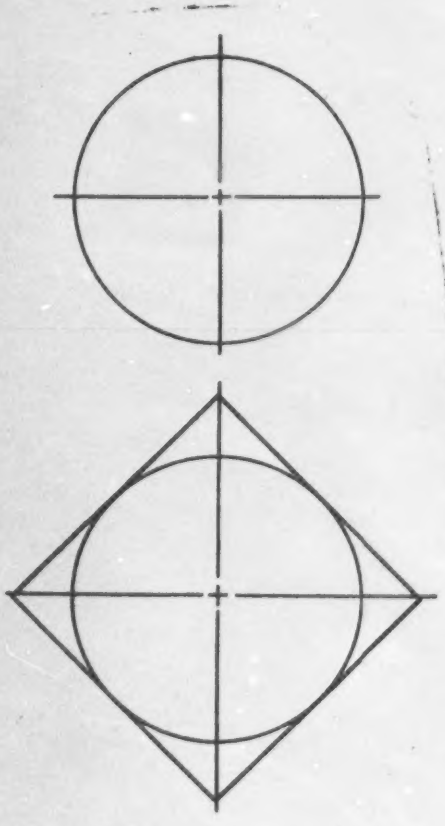
COURSE DRAFTING IB

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0 cont'd.

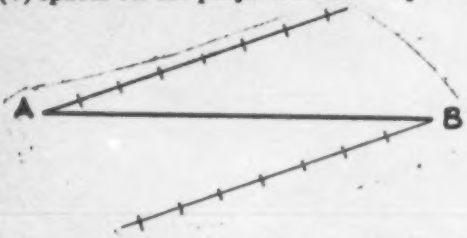
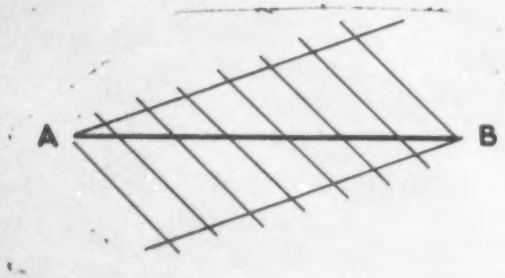
GEOMETRICS

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.4	The learner will mechanically draw a square with the side given.	5.4	Draw the top view of a square bolt head (across flats) using the side given method.



COURSE DRAFTING IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 5.0 cont'd. GEOMETRICS

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
5.5	The learner will divide a line of unknown length into a given number of equal divisions. Given: line AB of unknown length, to be divided into seven (7) equal divisions. 1.) Project construction lines from A and B parallel to one another. Set the compass or dividers to one quarter inch (1/4) and step off from A seven (7) spaces on the projected line. Repeat from B.  2.) Connect these points with construction lines. The intersections across A and B will give you the points of division. 	5.5	Divide any line of unknown length into equal divisions as requested by the instructor.

METHOD / MEDIA ANALYSIS

Terminal Performance Objectives - 5.0

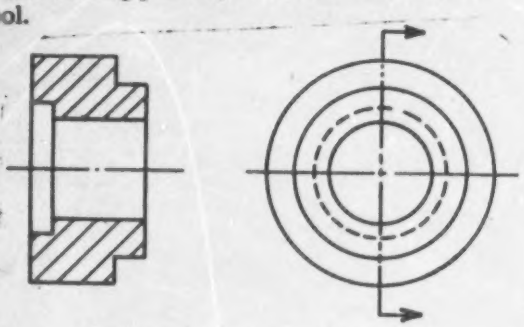
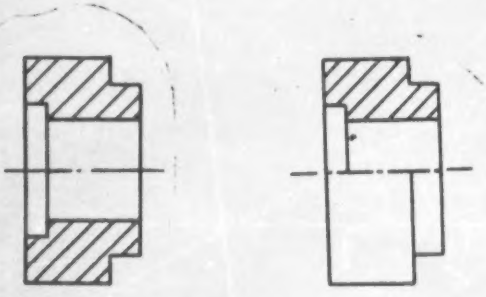
L.P. No.	M/M No.	Method / Media Selection
5.1	5.1.1	Chalkboard Demonstration
		Handout Sheet
		Equipment
5.2	5.2.1	Demonstration
		Equipment
		Handout Sheet
5.3	5.3.1	Demonstration
		Equipment
		Handout Sheet
5.4	5.4.1	Demonstration
		Equipment
		Handout Sheet
5.5	5.5.1	Demonstration
		Equipment
		Handout Sheet

COURSE DRAFTING IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 6.0

SECTIONAL VIEWS

With 90% accuracy, the learner will demonstrate his ability to draw an object employing sectional views (full or half) to describe interior shapes or hidden details.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
6.1	The learner will define in writing: 1. Full section - object cut clear through. 2. Half section - half the inside or outside features.	6.1	Define in writing these terms: 1. Full section 2. Half section
6.2	Draw the cutting plane symbol and a section line symbol.  SECTIONAL VIEW	6.2	Draw a section line symbol and the proper cross hatching to represent a sectioned view.
6.3	Using the proper symbols, draw a full and half section. 	6.3	Draw the front and top view of a solid cylinder 5 long and 3 in diameter. Show this object in a full section and a half section.

METHOD / MEDIA ANALYSIS

Terminal Performance Objectives - 6.0

I. P. No.	M/M No.	Method / Media Selection
6.1	6.1.1	Chalkboard Demonstration
		Text
		Film
		Handout Sheet
6.2	6.2.1	Demonstration
		Tools and Equipemnt
		Film
		Handout Sheet
6.3	6.3.1	Demonstration
		Tools and Equipment
		Film
		Handout Sheet

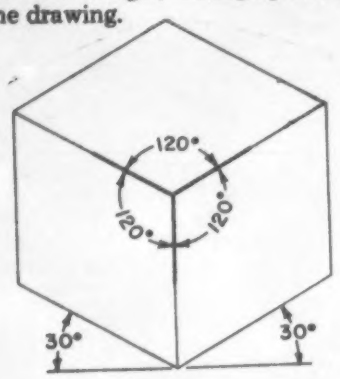
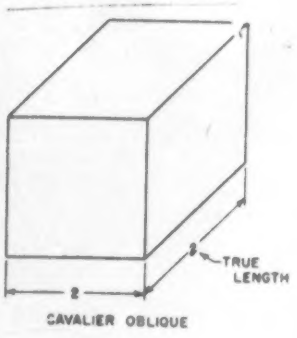
COURSE DRAFTING IB

9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 7.0

PICTORIAL DRAWING

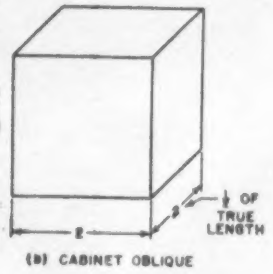
The learner will demonstrate his ability to do pictorial drafting, showing objects in isometric, cavalier, and cabinet positions.

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.1	**The learner will draw an object isometrically, using a T-Square, and a 30 - 60 triangle, setting up the axes and completing the drawing.**  *Isometric axes.*	7.1	Draw an isometric drawing of a 4 inch cube, using a pencil, a T-Square, and a 30 - 60 triangle.
7.2	**The learner will draw a cavalier oblique drawing of an object using a T-Square and a 45 triangle.**  CAVALIER OBLIQUE	7.2	Draw a cavalier oblique view of a rectangular solid 3 high, 3 wide, 4 in length.

COURSE DRAFTING IB
9th Grade

TERMINAL PERFORMANCE OBJECTIVE NO. 7.0 cont'd. PICTORIAL DRAWING

NO.	INTERMEDIATE PERFORMANCE OBJECTIVES	NO.	CRITERION MEASURES
7.3	The learner will draw a cabinet oblique of a 2 cube.	7.3	Draw a cabinet oblique of a 2 cube using a T-Square and a 45 triangle.



(b) CABINET OBLIQUE

METHOD / MEDIA ANALYSIS

Terminal Performance Objectives - 7.0

I. P. No.	M/M No.	Method / Media Selection
7.1	7.1.1	Demonstration
		Tools
		Equipment
		Text
		Instruction Sheet . .
		Handout Sheet
7.2	7.2.1	Chalkboard Demonstration
		Tools
		Equipment
		Text
		Handout Sheet
7.3	7.3.1	Chalkboard Demonstration
		Tools
		Equipment
		Text
		Handout Sheet

INDUSTRIAL ARTS EQUIPMENT LIST

GRAPHIC COMMUNICATIONS

JUNIOR HIGH SCHOOL

LETTERPRESS PRINTING

10	Fonts	Type, Assorted
3	5 lb. pkg.	Leads, 2 pt., General 24 inches
3	10 lb. pkg.	Slugs, 6 pt., General 24 inches
2	5 lb. pkg.	Lines, 1 pt. Center on 2 pt. Body
2	5 lb. pkg.	Lines, 2 pt. Center on 2 pt. Body
4	each	Rules, Perforating, Boyd, 24 inches lg.
12	each	Gauges, Line- Brass, Rouse, 12 inches
10	each	Composing Sticks, 6 inches
2	each	Composing Sticks, 10 inches
2	doz.	Quoins, Regular
2	doz.	Quoins, Quick-Lock
2	each	Keys, Quoin (regular)
2	each	Keys, Quoin (Quick-Lock)
1	each	Block Planer
1	each	Press Proofing (Challenge)
1	each	Table, Imposing w/Furniture and reglets (American)
24	each	Galleys, Rustproof
2	each	Presses, Hand-Operated "Superior"
12	each	Chases
2	each	Knives, Inking, 6 inches
2	each	Brushes, Type Cleaning
2	each	Cabinets, Type Storage w/Lead and Slug Banks
6	each	Tweezers
1	each	Bullman Paper Cutter, Size 18 inches
1	each	Bullman Paper Cutter, Size 36 inches
1	each	Mitering Machine (Rouse)
1	each	Lead and Slug Cutter (Rouse)
2	each	Justrite Safety CAn, (qt. size)

BOOKBINDING

1	each	Vise, Bookbinding w/Attachments (Pratt)
1	each	Hot Stamping Machine (Halvorford - Kwikprint)
3	Fonts	Type, Hot Stamping-Short Fonts
1	each	Staple Machine, Acme (Foot Power) or Swingline Electric
1	each	Paper Cutter, 26 inches Challenge
1	doz.	Folders, Bone
1	doz.	Scissors
1	each	Punch, Plastic (Speed - O - Print)
1	each	Binder, Plastic (Speed -O- Print)
1	each	Punch, 3 Hole (Bates)

LINOLEUM BLOCK PRINTING

4	sets	Carving Tools (Miller Falls)
2	each	Dispensers, Masking Tape

OFFSET PRINTING

1	each	Folder, Electric, 12 inch Rollers, (Fasfold Model)
1	each	Jogger, Flat Top, Electric (Martin Yale)
1	each	Press, Offset, A. B. Dick Model 326
1	each	Plate Maker, A. B. Dick Model 106
3	each	Ink Gun, Cartridge
1	each	Typewriter, I. B. M. Selector-Matic
6	each	Pens, Offset Ball Point, (A. B. Dick)
1	set	Rapi-Graph Pens
1	each	Light Table (Sandmar)
1	each	Cabinet, Offset Drawer Storage (American)

RUBBER STAMP MAKING

1	each	Rubber Stamp Machine (Berkroy)
3	Fonts	Type, Hot Stamp (Short Fonts)
1	assortment	Metal Furniture

SILKSCREENING

6	each	Frames, Silkscreen (Various Sizes)
24	each	Clamps, Silkscreen Frame
6	each	Squeegees, (Various Sizes)
12	each	Cutters, Stencil
1	each	Knife, Ink, 8 inches
1	each	Rack, Drying (American)

PHOTOGRAPHY

1	each	Camera, 35mm (Argus)
1	each	Camera, 120 (Yashica Mat)
2	each	Tanks, Film Developing w/Plastic Aprons
1	each	Tank, Film Developing w/Reel
3	each	Trays, Developing, 8 inches x 10 inches
3	each	Trays, Developing, 11 inches x 14 inches
8	each	Containers, Photo Chemical, One Gallon
2	each	Printers, Contact (Brumberg)
1	each	Enlarger (Omega D2)
1	each	Washer, Print (Arkay)
12	each	Aprons, Darkroom
6	each	Containers, Graduate
2	each	Paper Trimmer, 18 inches (National B/G)
1	each	Dryer, Print (Arkay)

DRAFTING

10	each	Drafting Tables, Two Student Unit (B/G)
20	each	Drafting Stools (B/G)
1	each	Drafting Table, for Instructor (B/G)

GENERAL EQUIPMENT

1	each	Cabinet, Storage (Lyons)
1	each	Benches, Wall Type - 24 inches x 108 inches
1	each	Benches, Wall Type, - 24 inches x 144 inches
2	each	Benches, Work - 60 inches x 34 inches x 34 inches
1	each	Stock Table
1	each	Bench, Work w/Steel Top
1	each	Cabinet, File, 4 - Drawer
2	each	Chairs, 17 inch Base
1	each	Desk, Teachers
1	each	Cabinet, Drawing, Complete w/Equipment

NOTE: The above equipment sizes may vary somewhat depending on the size of the facility.